

# $p(e,e'\pi)n$ Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22/1/25  
yy mm dd

Initials: DA

Use a separate sheet for each configuration.

LD-

Configuration Name: \_\_\_\_\_

$Q^2 = 3.85$ ,  $W = 3.07$ ,  $x = 0.31$   
high  $\epsilon$ , SHMS Right

E<sub>beam</sub>: 10.541 GeV

I<sub>beam</sub>: 200 nA  $\mu$ A

HMS

p:  $\theta = -3.944$  (TV): 17.490  
From GUI Nearest 0.005

SHMS

p:  $\theta = -6.538$  (TV): 7.910  
From GUI Nearest 0.005

Collimator:

HMS: Large Sieve ☒

SHMS: Collim Sieve ☒

Purpose:

- ☒ Production  
☐ Test (e.g. DAQ, Detector)  
☐ Optics (SHMS / HMS)  
☐ Other: \_\_\_\_\_

Raster: ☒ On ☐ Off  
Size: 2x2

Beam position and angle on target:

|           |   |           |
|-----------|---|-----------|
| 3H07A     | X | Y         |
| -0.128 mm |   | -0.308 mm |
| Nomin:    |   | Nomin:    |
| 3H07C     | X | Y         |
| -0.703 mm |   | -0.492 mm |
| Nomin:    |   | Nomin:    |

HMS

SHMS

|    |                                                                                                                               |   |                                                       |   |    |
|----|-------------------------------------------------------------------------------------------------------------------------------|---|-------------------------------------------------------|---|----|
| Q1 | I-SET (from PSU)<br>B-HALL<br>53.88<br>0.68140<br>T                                                                           | A | I-SET (from PSU)<br>B-HALL<br>2206.00<br>13.945<br>kg | A | HB |
| Q2 | I-SET (from PSU)<br>B-HALL<br>408.60<br>-0.78683<br>T                                                                         | A | I-SET (from PSU)<br>B-HALL<br>1376.40<br>-0.921<br>kg | A | Q1 |
| Q3 | I-SET (from PSU)<br>B-HALL<br>198.76<br>0.34846<br>T                                                                          | A | I-SET (from PSU)<br>B-HALL<br>2305.32<br>21.541<br>kg | A | Q2 |
| D  | I-READ<br>B-NMR<br>1209.60<br>1.07073<br>T                                                                                    | A | I-SET (from PSU)<br>B-HALL<br>1516.72<br>14.549<br>kg | A | Q3 |
|    | If momentum increased:<br><input checked="" type="checkbox"/> HMS cycled?<br><input checked="" type="checkbox"/> SHMS cycled? |   | I-SET (from PSU)<br>B-NMR<br>2085.56<br>-15.229<br>kg |   | D  |

Run Number:

15152

- ☐ LH2 10cm  
☒ LD2 10cm  
☐ Dummy 10cm  
☐ C 0.5% r.l.  
☐ Optics \_\_\_\_\_ cm  
☐ \_\_\_\_\_

PS1: 13  
PS2: -1  
PS3: -1  
PS4: 7  
PS5: 0  
PS6: 3  
Mode10: cer / fadc

Start time (RC GUI):

14:38:42

Stop time (RC GUI):

15:37:48

☒ Settings Verified?

☒ HV OK?

☒ 50k OK?

HMS prescale pretrig: 131 k

$e-\pi n$  evts: 961

SHMS prescale pretrig: 159 k

$\Sigma e-\pi n$  evts: —

COIN pretrig: 243 k

☒ Data ok

☐ Junk

Comments:

$Q = -20.266$  in C.

Run Number:

15153

- ☐ LH2 10cm  
☒ LD2 10cm  
☐ Dummy 10cm  
☐ C 0.5% r.l.  
☐ Optics \_\_\_\_\_ cm  
☐ \_\_\_\_\_

PS1: 13  
PS2: -1  
PS3: -1  
PS4: 7  
PS5: 0  
PS6: 1  
Mode10: cer / fadc

Start time (RC GUI):

15:34:33

Stop time (RC GUI):

16:39

☒ Settings Verified?

☒ HV OK?

☒ 50k OK?

HMS prescale pretrig: 101 k

$e-\pi n$  evts: 778

SHMS prescale pretrig: 122 k

$\Sigma e-\pi n$  evts: 1739

COIN pretrig: 179 k

☒ Data ok

☐ Junk

Comments:

HMS DC threshold 6V per RC's Request

$Q = 18.122$   
 $\Sigma Q = 38.389$

Run Number:

15154

- ☐ LH2 10cm  
☒ LD2 10cm  
☐ Dummy 10cm  
☐ C 0.5% r.l.  
☐ Optics \_\_\_\_\_ cm  
☐ \_\_\_\_\_

PS1: 13  
PS2: -1  
PS3: -1  
PS4: 7  
PS5: 0  
PS6: 1  
Mode10: cer / fadc

Start time (RC GUI):

16:41

Stop time (RC GUI):

17:40

☐ Settings Verified?

☐ HV OK?

☒ 50k OK?

HMS prescale pretrig: 197 k

$e-\pi n$  evts: 1495

SHMS prescale pretrig: 240 k

$\Sigma e-\pi n$  evts: 3,234

COIN pretrig: 318 k

☒ Data ok

☐ Junk

Comments:

$Q = 35.686$   
 $\Sigma Q = 72.07$

Run Number:

15155

- ☐ LH2 10cm  
☒ LD2 10cm  
☐ Dummy 10cm  
☐ C 0.5% r.l.  
☐ Optics \_\_\_\_\_ cm  
☐ \_\_\_\_\_

PS1: 13  
PS2: 7  
PS3: -1  
PS4: 7  
PS5: 0  
PS6: 1  
Mode10: cer / fadc

Start time (RC GUI):

17:40

Stop time (RC GUI):

18:40

☒ Settings Verified?

☒ HV OK?

☒ 50k OK?

HMS prescale pretrig: 206 k

$e-\pi n$  evts: 1664

SHMS prescale pretrig: 251 k

$\Sigma e-\pi n$  evts: 4898

COIN pretrig: 339 k

☒ Data ok

☐ Junk

Comments:

$Q = 37.435$   
 $\Sigma Q = 109.51$



# $p(e,e'\pi)n$ Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22 / 6 / 25  
yy mm dd

Initials: Bth

## Continuation of Configuration:

$Q^2 = 3.85$ ,  $W = 3.07$ ,  $x = 0.31$   
high  $t$ , SMS Right

LD

This sheet is only to be used to continue a running configuration.

|                             |                                                                                                                                                                                                                                               |                                                                                    |                                                               |                                                                                                                                                     |                                                     |                                                             |                                                                                                     |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15156</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 13<br>PS2: -1<br>PS3: -1<br>PS4: 7<br>PS5: 0<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>18:41<br>Stop time (RC GUI):<br>19:40 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 188 k<br>$e-\pi n$ evts: 1403 | SHMS prescale pretrig: 228 k<br>$\Sigma e-\pi n$ evts: 6301 | COIN pretrig: 306 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|

$Q = 33.97$  mC  
 $\Sigma Q = 143.48$

|                             |                                                                                                                                                                                                                                               |                                                                                    |                                                               |                                                                                                                                                     |                                                     |                                                             |                                                                                                     |
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| Run Number:<br><b>15157</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 13<br>PS2: -1<br>PS3: -1<br>PS4: 7<br>PS5: 0<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>19:41<br>Stop time (RC GUI):<br>20:39 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 297 k<br>$e-\pi n$ evts: 2178 | SHMS prescale pretrig: 362 k<br>$\Sigma e-\pi n$ evts: 8479 | COIN pretrig: 673 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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$Q = 54.166$  mC  
 $\Sigma Q = 197.646$

|                             |                                                                                                                                                                                                                                               |                                                                                    |                                                               |                                                                                                                                                     |                                                     |                                                              |                                                                                                     |
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| Run Number:<br><b>15158</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 13<br>PS2: -1<br>PS3: -1<br>PS4: 7<br>PS5: 0<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>20:40<br>Stop time (RC GUI):<br>21:40 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 350 k<br>$e-\pi n$ evts: 2554 | SHMS prescale pretrig: 426 k<br>$\Sigma e-\pi n$ evts: 11033 | COIN pretrig: 872 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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$Q = 63.970$   
 $\Sigma Q = 261.616$

|                             |                                                                                                                                                                                                                                               |                                                                                    |                                                               |                                                                                                                                          |                                                     |                                                              |                                                                                                     |
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| Run Number:<br><b>15159</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 13<br>PS2: -1<br>PS3: -1<br>PS4: 7<br>PS5: 0<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>21:40<br>Stop time (RC GUI):<br>22:39 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: 327 k<br>$e-\pi n$ evts: 2303 | SHMS prescale pretrig: 399 k<br>$\Sigma e-\pi n$ evts: 13336 | COIN pretrig: 820 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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$Q = 59.736$   
 $\Sigma Q = 321.352$

|                             |                                                                                                                                                                                                                                               |                                                                                    |                                                               |                                                                                                                                          |                                            |                                                    |                                                                                                 |
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| Run Number:<br><b>15160</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 13<br>PS2: -1<br>PS3: -1<br>PS4: 7<br>PS5: 0<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>22:39<br>Stop time (RC GUI):<br>22:42 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>$e-\pi n$ evts: | SHMS prescale pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------|

fadc 10

|                             |                                                                                                                                                                                                                                               |                                                                                    |                                                               |                                                                                                                                                     |                                                     |                                                             |                                                                                                     |
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| Run Number:<br><b>15161</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 13<br>PS2: -1<br>PS3: -1<br>PS4: 7<br>PS5: 0<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>22:43<br>Stop time (RC GUI):<br>23:42 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 274 k<br>$e-\pi n$ evts: 1950 | SHMS prescale pretrig: 334 k<br>$\Sigma e-\pi n$ evts: 2821 | COIN pretrig: 697 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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We changed threshold from 6.0V to 5.8V //



# $p(e, e'\pi)n$ Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 12/6/25  
yy mm dd

Initials: SJD/K

## Continuation of Configuration:

Q<sup>2</sup>=3.85, W=3.07  
Left SHMS Right.

LD -

This sheet is only to be used to continue a running configuration.

|                             |                                                                                                                                                                                                                                                          |                                                                                                                                     |                                                                             |                                                                                                                                                     |                                                                   |                                                                                                |                                                                                                            |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Run Number:<br><u>15162</u> | <input checked="" type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>13</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>7</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: <u>cer / fadc</u> | Start time (RC GUI):<br><u>23:43</u><br>Stop time (RC GUI):<br><u>00:44</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>363</u> k<br>$e-\pi n$ evts: <u>2550</u> | SHMS prescale pretrig: <u>442</u> k<br>$\Sigma e-\pi n$ evts: <u>17869</u><br><del>17821</del> | COIN pretrig: <u>813</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|

we changed threshold again from ~~5.8~~ to 5.8 V because of noise  
6.0 66mC

|                             |                                                                                                                                                                                                                                               |                                                                                                                                  |                                                                           |                                                                                                                                                     |                                                                   |                                                                            |                                                                                                            |
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| Run Number:<br><u>15163</u> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>13</u><br>PS2: <u>1</u><br>PS3: <u>7</u><br>PS4: <u>7</u><br>PS5: <u>0</u><br>PS6: <u>0</u><br>Mode10: <u>cer / fadc</u> | Start time (RC GUI):<br><u>0:45</u><br>Stop time (RC GUI):<br><u>1:45</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>330</u> k<br>$e-\pi n$ evts: <u>2308</u> | SHMS prescale pretrig: <u>402</u> k<br>$\Sigma e-\pi n$ evts: <u>20177</u> | COIN pretrig: <u>829</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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|                             |                                                                                                                                                                                                                                               |                                                                                                                                  |                                                                           |                                                                                                                                                     |                                                                   |                                                                            |                                                                                                            |
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| Run Number:<br><u>15164</u> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>13</u><br>PS2: <u>1</u><br>PS3: <u>7</u><br>PS4: <u>7</u><br>PS5: <u>0</u><br>PS6: <u>0</u><br>Mode10: <u>cer / fadc</u> | Start time (RC GUI):<br><u>1:45</u><br>Stop time (RC GUI):<br><u>2:45</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>332</u> k<br>$e-\pi n$ evts: <u>2398</u> | SHMS prescale pretrig: <u>404</u> k<br>$\Sigma e-\pi n$ evts: <u>22575</u> | COIN pretrig: <u>833</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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|                             |                                                                                                                                                                                                                                               |                                                                                                                                  |                                                                           |                                                                                                                                                     |                                                                   |                                                                            |                                                                                                            |
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| Run Number:<br><u>15165</u> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>13</u><br>PS2: <u>1</u><br>PS3: <u>7</u><br>PS4: <u>7</u><br>PS5: <u>0</u><br>PS6: <u>0</u><br>Mode10: <u>cer / fadc</u> | Start time (RC GUI):<br><u>2:45</u><br>Stop time (RC GUI):<br><u>3:45</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>352</u> k<br>$e-\pi n$ evts: <u>2640</u> | SHMS prescale pretrig: <u>428</u> k<br>$\Sigma e-\pi n$ evts: <u>25215</u> | COIN pretrig: <u>885</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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|                             |                                                                                                                                                                                                                                               |                                                                                                                                  |                                                                           |                                                                                                                                                     |                                                                   |                                                                            |                                                                                                            |
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| Run Number:<br><u>15166</u> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>13</u><br>PS2: <u>X</u><br>PS3: <u>7</u><br>PS4: <u>7</u><br>PS5: <u>0</u><br>PS6: <u>0</u><br>Mode10: <u>cer / fadc</u> | Start time (RC GUI):<br><u>3:45</u><br>Stop time (RC GUI):<br><u>4:45</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>303</u> k<br>$e-\pi n$ evts: <u>2384</u> | SHMS prescale pretrig: <u>369</u> k<br>$\Sigma e-\pi n$ evts: <u>27799</u> | COIN pretrig: <u>763</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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55mC

|                             |                                                                                                                                                                                                                                               |                                                                                                                                  |                                                                           |                                                                                                                                                     |                                                                                       |                                                                                                                |                                                                                                            |
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| Run Number:<br><u>15167</u> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>13</u><br>PS2: <u>X</u><br>PS3: <u>7</u><br>PS4: <u>7</u><br>PS5: <u>0</u><br>PS6: <u>0</u><br>Mode10: <u>cer / fadc</u> | Start time (RC GUI):<br><u>4:45</u><br>Stop time (RC GUI):<br><u>5:45</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>224</u> k<br>$e-\pi n$ evts: <u>16101</u><br><del>2568</del> | SHMS prescale pretrig: <u>273</u> k<br>$\Sigma e-\pi n$ evts: <u>29009</u><br><del>30017</del><br><u>30367</u> | COIN pretrig: <u>564</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|



# $p(e,e'\pi)n$ Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22/06/26  
yy mm dd

Initials: NH

## Continuation of Configuration:

$Q^2 = 3.85$   $W = 3.07$  LD-  
SHMS Right High E

This sheet is only to be used to continue a running configuration.

|                             |                                                                                                                                                                                                                                               |                                                                                                                               |                                                                           |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                            |
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| Run Number:<br><u>15168</u> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>13</u><br>PS2: <u>X</u><br>PS3: _____<br>PS4: <u>7</u><br>PS5: <u>0</u><br>PS6: <u>0</u><br>Mode10: <u>cer</u> / fadc | Start time (RC GUI):<br><u>5:45</u><br>Stop time (RC GUI):<br><u>6:46</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <u>338</u> k<br>$e-\pi n$ evts:<br><u>2430</u> | SHMS prescale<br>pretrig: <u>407</u> k<br>$\Sigma e-\pi n$ evts:<br><u>32797</u> | COIN pretrig: <u>845</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments:                   |                                                                                                                                                                                                                                               |                                                                                                                               |                                                                           |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                            |

|                             |                                                                                                                                                                                                                                               |                                                                                                                               |                                                                           |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                       |
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| Run Number:<br><u>15169</u> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>13</u><br>PS2: <u>X</u><br>PS3: _____<br>PS4: <u>7</u><br>PS5: <u>0</u><br>PS6: <u>0</u><br>Mode10: <u>cer</u> / fadc | Start time (RC GUI):<br><u>6:46</u><br>Stop time (RC GUI):<br><u>7:45</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <u>327</u> k<br>$e-\pi n$ evts:<br><u>1908</u> | SHMS prescale<br>pretrig: <u>665</u> k<br>$\Sigma e-\pi n$ evts:<br><u>34705</u> | COIN pretrig: _____ k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments:                   |                                                                                                                                                                                                                                               |                                                                                                                               |                                                                           |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                       |

$Q = 49.185$

|                             |                                                                                                                                                                                                                                               |                                                                                                                               |                                                                           |                                                                                                                                                     |                                                                    |                                                                             |                                                                                                       |
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| Run Number:<br><u>15170</u> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>13</u><br>PS2: <u>X</u><br>PS3: _____<br>PS4: <u>7</u><br>PS5: <u>0</u><br>PS6: <u>0</u><br>Mode10: <u>cer</u> / fadc | Start time (RC GUI):<br><u>7:46</u><br>Stop time (RC GUI):<br><u>8:46</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: _____ k<br>$e-\pi n$ evts:<br><u>2122</u> | SHMS prescale<br>pretrig: _____ k<br>$\Sigma e-\pi n$ evts:<br><u>36827</u> | COIN pretrig: _____ k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments:                   |                                                                                                                                                                                                                                               |                                                                                                                               |                                                                           |                                                                                                                                                     |                                                                    |                                                                             |                                                                                                       |

|                                     |                                                                                                                                                                                                                                    |                                                                                                          |                                                                                 |                                                                                                                               |                                                     |                                                             |                                                                                                       |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|-------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Run Number:<br><u>15171</u>         | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: _____ / fadc | Start time (RC GUI):<br><u>8:46:01</u><br>Stop time (RC GUI):<br><u>8:46:23</u> | <input type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: _____ k<br>$e-\pi n$ evts: | SHMS prescale<br>pretrig: _____ k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
| Comments:<br><u>Junk for 30 sec</u> |                                                                                                                                                                                                                                    |                                                                                                          |                                                                                 |                                                                                                                               |                                                     |                                                             |                                                                                                       |

|                                                   |                                                                                                                                                                                                                                               |                                                                                                                                     |                                                                            |                                                                                                                                                     |                                                                       |                                                                               |                                                                                                           |
|---------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------|-------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Run Number:<br><u>15172</u>                       | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>11</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>5</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: <u>cer</u> / fadc | Start time (RC GUI):<br><u>08:57</u><br>Stop time (RC GUI):<br><u>9:46</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <u>135</u> k<br>$e-\pi n$ evts:<br><u>91</u> | SHMS prescale<br>pretrig: <u>174</u> k<br>$\Sigma e-\pi n$ evts:<br><u>91</u> | COIN pretrig: <u>48</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments:<br><u>Target changed to dummy 10 cm</u> |                                                                                                                                                                                                                                               |                                                                                                                                     |                                                                            |                                                                                                                                                     |                                                                       |                                                                               |                                                                                                           |

|                             |                                                                                                                                                                                                                                               |                                                                                                                                     |                                                                                |                                                                                                                                                     |                                                                        |                                                                                |                                                                                                           |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Run Number:<br><u>15173</u> | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input checked="" type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>11</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>5</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: <u>cer</u> / fadc | Start time (RC GUI):<br><u>15:09:09</u><br>Stop time (RC GUI):<br><u>11:06</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <u>218</u> k<br>$e-\pi n$ evts:<br><u>155</u> | SHMS prescale<br>pretrig: <u>282</u> k<br>$\Sigma e-\pi n$ evts:<br><u>296</u> | COIN pretrig: <u>60</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments:                   |                                                                                                                                                                                                                                               |                                                                                                                                     |                                                                                |                                                                                                                                                     |                                                                        |                                                                                |                                                                                                           |

# $p(e,e'\pi)n$ Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22 / 06 / 26  
yy mm dd

Initials: BM

## Continuation of Configuration:

$A^2 = 3.85$ ,  $N = 307$ ,  $D_{\text{mag}} = 10$

SHMS Right

This sheet is only to be used to continue a running configuration.

|                             |                                                                                                                                                                                                                                              |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                               |                                                                         |                                                                                                           |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------|-------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15174</b> | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input checked="" type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: <u>11</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>5</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>11:07</u><br>Stop time (RC GUI):<br><u>11:20</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>51</u> k<br>$e-\pi n$ evts: <u>7</u> | SHMS prescale pretrig: <u>66</u> k<br>$\Sigma e-\pi n$ evts: <u>303</u> | COIN pretrig: <u>14</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments:                   |                                                                                                                                                                                                                                              |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                               |                                                                         |                                                                                                           |

|                             |                                                                                                                                                                                                                                   |                                                                                                        |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                            |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Run Number:<br><b>15175</b> | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br><br>Stop time (RC GUI):<br><br> | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments:                   |                                                                                                                                                                                                                                   |                                                                                                        |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                            |

|             |                                                                                                                                                                                                                                   |                                                                                                        |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                            |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br><br>Stop time (RC GUI):<br><br> | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments:   |                                                                                                                                                                                                                                   |                                                                                                        |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                            |

|             |                                                                                                                                                                                                                                   |                                                                                                        |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                            |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br><br>Stop time (RC GUI):<br><br> | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments:   |                                                                                                                                                                                                                                   |                                                                                                        |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                            |

|             |                                                                                                                                                                                                                                   |                                                                                                        |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                            |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br><br>Stop time (RC GUI):<br><br> | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments:   |                                                                                                                                                                                                                                   |                                                                                                        |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                            |

|             |                                                                                                                                                                                                                                   |                                                                                                        |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                            |
|-------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br><br>Stop time (RC GUI):<br><br> | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments:   |                                                                                                                                                                                                                                   |                                                                                                        |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                            |



# $p(e,e'\pi)n$ Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22/06/26  
yy mm dd

Initials: BH

Use a separate sheet for each configuration.

Configuration Name: \_\_\_\_\_

$Q^2 = 3.85$ ,  $W = 3.07$ ,  $x = 0.31$   
high  $\epsilon$ , SHMS Centre

$E_{\text{beam}}$ : 10.5 GeV

$I_{\text{beam}}$ : 20  $\mu\text{A}$

Purpose:

- ☒ Production  
☐ Test (e.g. DAQ, Detector)  
☐ Optics (SHMS / HMS)  
☐ Other: \_\_\_\_\_

Raster: ☒ On ☐ Off  
Size: 2x2

Beam position and angle on target:

|                   |   |                   |
|-------------------|---|-------------------|
| 3H07A             | X | Y                 |
| <u>-0.0578</u> mm |   | <u>-0.3136</u> mm |
| Nomin:            |   | Nomin:            |
| 3H07C             | X | Y                 |
| <u>-0.649</u> mm  |   | <u>0.517</u> mm   |
| Nomin:            |   | Nomin:            |

HMS

SHMS

|    |                                                                                                         |                                                                    |    |
|----|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------|----|
| Q1 | I-SET (from PSU)<br><u>513.836</u> A<br>B-HALL<br><u>0.679</u> T                                        | I-SET (from PSU)<br><u>2206.7</u> A<br>B-HALL<br><u>13.945</u> kg  | HB |
| Q2 | I-SET (from PSU)<br><u>408.574</u> A<br>B-HALL<br><u>-0.7896</u> T                                      | I-SET (from PSU)<br><u>1376.58</u> A<br>B-HALL<br><u>-9.720</u> kg | Q1 |
| Q3 | I-SET (from PSU)<br><u>198.679</u> A<br>B-HALL<br><u>0.39943</u> T                                      | I-SET (from PSU)<br><u>2305.83</u> A<br>B-HALL<br><u>21.590</u> kg | Q2 |
| D  | I-READ<br><u>1209.60</u> A<br>B-NMR<br><u>1.07973</u> T                                                 | I-SET (from PSU)<br><u>1517.22</u> A<br>B-HALL<br><u>14.597</u> kg | Q3 |
|    | If momentum increased:<br><input type="checkbox"/> HMS cycled?<br><input type="checkbox"/> SHMS cycled? | I-SET (from PSU)<br><u>2086.02</u> A<br>B-NMR<br><u>-15.223</u> kg | D  |

Run Number:

15175

Comments:

- ☐ LH2 10cm  
☒ LD2 10cm  
☐ Dummy 10cm  
☐ C 0.5% r.l.  
☐ Optics \_\_\_\_\_ cm  
☐ \_\_\_\_\_

PS1: 12  
PS2: -1  
PS3: -1  
PS4: 8  
PS5: 0  
PS6: -1  
Mode10: cer / fadc

Start time (RC GUI):

12:49

Stop time (RC GUI):

13:07

- ☒ Settings Verified?  
☒ HV OK?  
☒ 50k OK?

HMS prescale  
pretrig: 55 k

$e-\pi n$  evts:

210

SHMS prescale  
pretrig: 86 k

$\Sigma e-\pi n$  evts:

210

COIN  
pretrig: 106 k

☒ Data ok

☒ Junk

short run: weird shape of  $e-\pi n$  evts after full replay.  
→ probably junk. missing ref. times

Run Number:

15176

Comments:

- ☐ LH2 10cm  
☒ LD2 10cm  
☐ Dummy 10cm  
☐ C 0.5% r.l.  
☐ Optics \_\_\_\_\_ cm  
☐ \_\_\_\_\_

PS1: 12  
PS2: -1  
PS3: -1  
PS4: 8  
PS5: 0  
PS6: -1  
Mode10: cer / fadc

Start time (RC GUI):

13:09

Stop time (RC GUI):

13:31

- ☒ Settings Verified?  
☒ HV OK?  
☒ 50k OK?

HMS prescale  
pretrig: 57 k

$e-\pi n$  evts:

218

SHMS prescale  
pretrig: 89 k

$\Sigma e-\pi n$  evts:

428

COIN  
pretrig: 108 k

☐ Data ok

☒ Junk

Probably Junk  
missing reference time error

Run Number:

15177

Comments:

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ Dummy 10cm  
☐ C 0.5% r.l.  
☐ Optics \_\_\_\_\_ cm  
☐ \_\_\_\_\_

PS1: 12  
PS2: -1  
PS3: -1  
PS4: 8  
PS5: 0  
PS6: -1  
Mode10: cer / fadc

Start time (RC GUI):

13:36

Stop time (RC GUI):

13:39

- ☒ Settings Verified?  
☐ HV OK?  
☐ 50k OK?

HMS prescale  
pretrig: \_\_\_\_\_ k

$e-\pi n$  evts:

26

SHMS prescale  
pretrig: \_\_\_\_\_ k

$\Sigma e-\pi n$  evts:

\_\_\_\_\_

COIN  
pretrig: \_\_\_\_\_ k

☐ Data ok

☒ Junk

Threshold (16.5) missing reference time errors

Run Number:

15178

Comments:

- ☐ LH2 10cm  
☐ LD2 10cm  
☐ Dummy 10cm  
☐ C 0.5% r.l.  
☐ Optics \_\_\_\_\_ cm  
☐ \_\_\_\_\_

PS1: 12  
PS2: -1  
PS3: -1  
PS4: 8  
PS5: 0  
PS6: -1  
Mode10: cer / fadc

Start time (RC GUI):

13:41

Stop time (RC GUI):

13:49

- ☐ Settings Verified?  
☐ HV OK?  
☐ 50k OK?

HMS prescale  
pretrig: \_\_\_\_\_ k

$e-\pi n$  evts:

\_\_\_\_\_

SHMS prescale  
pretrig: \_\_\_\_\_ k

$\Sigma e-\pi n$  evts:

\_\_\_\_\_

COIN  
pretrig: \_\_\_\_\_ k

☐ Data ok

☒ Junk

Junk

# $p(e,e'\pi)n$ Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22/06/26  
yy mm dd

Initials: BH

## Continuation of Configuration:

$Q^2=3.85$ ,  $W=3.07$ ,  $x=0.31$

high  $E_1$  shms centre

This sheet is only to be used to continue a running configuration.

|                                 |                                                                                                                                                                                                                                              |                                                                                    |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15179</b>     | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: -1<br>PS4: 8<br>PS5: 8<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>13:45<br>Stop time (RC GUI):<br>13:46 | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>$e-\pi n$ evts: | SHMS prescale pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
| Comments: Junk Threshold 8:00 V |                                                                                                                                                                                                                                              |                                                                                    |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |

|                             |                                                                                                                                                                                                                                              |                                                                                    |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |
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| Run Number:<br><b>15180</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: -1<br>PS4: 8<br>PS5: 8<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>13:47<br>Stop time (RC GUI):<br>13:48 | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>$e-\pi n$ evts: | SHMS prescale pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
| Comments: Threshold 10:00 V |                                                                                                                                                                                                                                              |                                                                                    |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |

|                             |                                                                                                                                                                                                                                              |                                                                                    |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |
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| Run Number:<br><b>15181</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: -1<br>PS4: 8<br>PS5: 8<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>13:51<br>Stop time (RC GUI):<br>13:55 | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>$e-\pi n$ evts: | SHMS prescale pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
| Comments: Threshold 12:00 V |                                                                                                                                                                                                                                              |                                                                                    |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |

|                             |                                                                                                                                                                                                                                              |                                                                                   |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |
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| Run Number:<br><b>15182</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: -1<br>PS4: 8<br>PS5: 8<br>PS6: 7<br>Mode10: cer / fadc | Start time (RC GUI):<br>13:56<br>Stop time (RC GUI):<br>14:00 | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>$e-\pi n$ evts: | SHMS prescale pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
| Comments: Threshold 20:00 V |                                                                                                                                                                                                                                              |                                                                                   |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |

|                                                |                                                                                                                                                                                                                                              |                                                                                   |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |
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| Run Number:<br><b>15183</b>                    | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: -1<br>PS4: 8<br>PS5: 8<br>PS6: 7<br>Mode10: cer / fadc | Start time (RC GUI):<br>14:02<br>Stop time (RC GUI):<br>14:06 | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>$e-\pi n$ evts: | SHMS prescale pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
| Comments: No beam testing on Threshold 20:00 V |                                                                                                                                                                                                                                              |                                                                                   |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |

|                                     |                                                                                                                                                                                                                                              |                                                                                  |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |
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| Run Number:<br><b>15184</b>         | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: 0<br>PS4: 8<br>PS5: 8<br>PS6: 7<br>Mode10: cer / fadc | Start time (RC GUI):<br>14:07<br>Stop time (RC GUI):<br>14:11 | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>$e-\pi n$ evts: | SHMS prescale pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
| Comments: No beam, Threshold 6:00 V |                                                                                                                                                                                                                                              |                                                                                  |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |



# p(e,e'π)n Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 220626  
yy mm dd

Initials: GH

## Continuation of Configuration:

$Q^2 = 3.85$ ,  $W = 3.07$ ,  $high E$

$E_{beam} = 9.91$

This sheet is only to be used to continue a running configuration.

|                             |                                                                                                                                                                                                                                              |                                                                                  |                                                               |                                                                                                                    |                                       |                                          |                                                                                                 |
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| Run Number:<br><b>15185</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: 0<br>PS4: 8<br>PS5: 8<br>PS6: 7<br>Mode10: cer / fadc | Start time (RC GUI):<br>14:12<br>Stop time (RC GUI):<br>14:16 | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>e-πn evts: | SHMS prescale pretrig: k<br>Σ e-πn evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
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No beam threshold 7:00 ✓

|                             |                                                                                                                                                                                                                                              |                                                                                  |                                                               |                                                                                                                    |                                       |                                          |                                                                                                 |
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| Run Number:<br><b>15186</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: 0<br>PS4: 8<br>PS5: 8<br>PS6: 7<br>Mode10: cer / fadc | Start time (RC GUI):<br>14:16<br>Stop time (RC GUI):<br>14:28 | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>e-πn evts: | SHMS prescale pretrig: k<br>Σ e-πn evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
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No beam threshold 6:55 ✓

|                             |                                                                                                                                                                                                                                              |                                                                                  |                                                      |                                                                                                                    |                                       |                                          |                                                                                                 |
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| Run Number:<br><b>15187</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: 0<br>PS4: 8<br>PS5: 8<br>PS6: 7<br>Mode10: cer / fadc | Start time (RC GUI):<br>14:33<br>Stop time (RC GUI): | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>e-πn evts: | SHMS prescale pretrig: k<br>Σ e-πn evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
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No beam threshold 7:00

|                             |                                                                                                                                                                                                                                              |                                                                                  |                                                               |                                                                                                                    |                                       |                                          |                                                                                                 |
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| Run Number:<br><b>15188</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: 0<br>PS4: 8<br>PS5: 8<br>PS6: 7<br>Mode10: cer / fadc | Start time (RC GUI):<br>15:47<br>Stop time (RC GUI):<br>16:06 | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>e-πn evts: | SHMS prescale pretrig: k<br>Σ e-πn evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
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| Run Number:<br><b>15189</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input checked="" type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: 0<br>PS4: 8<br>PS5: 8<br>PS6: 7<br>Mode10: cer / fadc | Start time (RC GUI):<br>16:18<br>Stop time (RC GUI):<br>16:56 | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>e-πn evts: | SHMS prescale pretrig: k<br>Σ e-πn evts: | COIN pretrig: k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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BCM Calibration 0,5,0,10,0,15,20,0 repeat

|                             |                                                                                                                                                                                                                                   |                                                                                                        |                                             |                                                                                                                    |                                       |                                          |                                                                                      |
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| Run Number:<br><b>15190</b> | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br>Stop time (RC GUI): | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>e-πn evts: | SHMS prescale pretrig: k<br>Σ e-πn evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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# p(e,e' $\pi$ )n Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22 / 06 / 26  
yy mm dd

Initials: GH

## Continuation of Configuration:

$Q^2=3.85$ ,  $W=3.07$ , high  $E$   
 $\theta_{SHMS}=9.91^\circ$

This sheet is only to be used to continue a running configuration.

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                          |                                             |                                                       |                                                                                                 |
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| Run Number:<br><b>15196</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>19:00</b><br>Stop time (RC GUI):<br><b>19:03</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>e- $\pi$ n evts: | SHMS prescale pretrig: k<br>$\Sigma$ e- $\pi$ n evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
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Testing at 7V Drift Chamber

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                                     |                                             |                                                       |                                                                                                 |
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| Run Number:<br><b>15197</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>19:03</b><br>Stop time (RC GUI):<br><b>19:15</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>e- $\pi$ n evts: | SHMS prescale pretrig: k<br>$\Sigma$ e- $\pi$ n evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
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5.5V Drift Chamber voltage. Lost the beam.

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                   |                                                                              |                                                                                                                       |
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| Run Number:<br><b>15198</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>19:51</b><br>Stop time (RC GUI):<br><b>20:29</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <b>94</b> k<br>e- $\pi$ n evts: <b>1656</b> | SHMS prescale pretrig: <b>146</b> k<br>$\Sigma$ e- $\pi$ n evts: <b>1656</b> | COIN pretrig: <b>176</b> k<br><input checked="" type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
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Beam went off. Stopping run.

CHARGE: 34 mC

TOTAL CHARGE: 34 mC

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                   |                                                                              |                                                                                                            |
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| Run Number:<br><b>15199</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>20:43</b><br>Stop time (RC GUI):<br><b>21:20</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <b>90</b> k<br>e- $\pi$ n evts: <b>1628</b> | SHMS prescale pretrig: <b>140</b> k<br>$\Sigma$ e- $\pi$ n evts: <b>3284</b> | COIN pretrig: <b>168</b> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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CHARGE ~~34 mC~~  
CHAR. TOTAL: 123.05 mC

|                             |                                                                                                                                                                                                                                               |                                                                                                                             |                                                                             |                                                                                                                                          |                                             |                                                       |                                                                                                 |
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| Run Number:<br><b>15200</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>21:22</b><br>Stop time (RC GUI):<br><b>21:23</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>e- $\pi$ n evts: | SHMS prescale pretrig: k<br>$\Sigma$ e- $\pi$ n evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
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TODO: FADC. Junk: waiting for the beam

|                             |                                                                                                                                                                                                                                               |                                                                                                                             |                                                             |                                                                                                                                          |                                             |                                                       |                                                                                                 |
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| Run Number:<br><b>15201</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>21:26</b><br>Stop time (RC GUI): | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>e- $\pi$ n evts: | SHMS prescale pretrig: k<br>$\Sigma$ e- $\pi$ n evts: | COIN pretrig: k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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FADC



# p(e,e'π)n Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 12/6/26  
yy mm dd

Initials: PS.

## Continuation of Configuration:

$Q^2 = 3.85$   $W = 307$   $high E$   
 $Q_{SHMS} = 9,910$

This sheet is only to be used to continue a running configuration.

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                         |                                                                                 |                                                                                                            |
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| Run Number:<br><b>15202</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>21:32</u><br>Stop time (RC GUI):<br><u>22:32</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <u>213</u> k<br>$e-\pi n$ evts:<br><u>3486</u> | SHMS prescale<br>pretrig: <u>341</u> k<br>$\Sigma e-\pi n$ evts:<br><u>6730</u> | COIN pretrig: <u>759</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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beam current is rising MCC tries 50mA

CHARGE: ~~77.92~~  
CHARGE TOTAL: ~~144~~

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                             |
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| Run Number:<br><b>15203</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>00:54</u><br>Stop time (RC GUI):<br><u>02:00</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <u>335</u> k<br>$e-\pi n$ evts:<br><u>5547</u> | SHMS prescale<br>pretrig: <u>535</u> k<br>$\Sigma e-\pi n$ evts:<br><u>12313</u> | COIN pretrig: <u>1137</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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$I = 40 \text{ nA}$

Charge: 122.47

Charge total: 266.816

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                          |                                                                         |                                                                                  |                                                                                                             |
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| Run Number:<br><b>15204</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>02:00</u><br>Stop time (RC GUI):<br><u>03:01</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <u>332</u> k<br>$e-\pi n$ evts:<br><u>5428</u> | SHMS prescale<br>pretrig: <u>536</u> k<br>$\Sigma e-\pi n$ evts:<br><u>17741</u> | COIN pretrig: <u>1107</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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$I = 40 \text{ nA}$

$Q = 121.343$

$Q_{TOT} = 388.159$

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                      |                                                                                                                                          |                                                              |                                                                      |                                                                                                       |
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| Run Number:<br><b>15205</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>03:01</u><br>Stop time (RC GUI):<br>_____ | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: _____ k<br>$e-\pi n$ evts:<br>_____ | SHMS prescale<br>pretrig: _____ k<br>$\Sigma e-\pi n$ evts:<br>_____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
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Junk no beam

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                          |                                                                        |                                                                                  |                                                                                                            |
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| Run Number:<br><b>15206</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>03:19</u><br>Stop time (RC GUI):<br><u>03:33</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <u>68</u> k<br>$e-\pi n$ evts:<br><u>4069</u> | SHMS prescale<br>pretrig: <u>108</u> k<br>$\Sigma e-\pi n$ evts:<br><u>18810</u> | COIN pretrig: <u>224</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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AMS Interlocks

$Q = 24.866$

$Q_{TOT} = 412.965$

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                          |                                                                         |                                                                                  |                                                                                                            |
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| Run Number:<br><b>15212</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>20:43</u><br>Stop time (RC GUI):<br><u>21:10</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <u>129</u> k<br>$e-\pi n$ evts:<br><u>2122</u> | SHMS prescale<br>pretrig: <u>207</u> k<br>$\Sigma e-\pi n$ evts:<br><u>20932</u> | COIN pretrig: <u>446</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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stopped to change ps1 from 12 to 13

$Q = 47.379$

$Q_{TOT} = 410.344$



# $p(e, e'\pi)n$ Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22 / 6 / 27  
yy mm dd

Initials: I. S.

## Continuation of Configuration:

$Q^2 = 3.85$ ,  $W = 3.07$ , high  $E$

$Q_{SHMS} = 9.91$

This sheet is only to be used to continue a running configuration.

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                             |
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| Run Number:<br><u>15213</u> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>13</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>21:15</u><br>Stop time (RC GUI):<br><u>22:15</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <u>306</u> k<br>$e-\pi n$ evts:<br><u>5066</u> | SHMS prescale<br>pretrig: <u>247</u> k<br>$\Sigma e-\pi n$ evts:<br><u>25998</u> | COIN pretrig: <u>1230</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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Comments:

$I = 49 \mu A$

$Q = 112.443$

$Q_{TOTAL} = 572.787$

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                            |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Run Number:<br><u>15214</u> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>13</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>22:16</u><br>Stop time (RC GUI):<br><u>23:15</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <u>236</u> k<br>$e-\pi n$ evts:<br><u>3803</u> | SHMS prescale<br>pretrig: <u>190</u> k<br>$\Sigma e-\pi n$ evts:<br><u>29801</u> | COIN pretrig: <u>928</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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Comments:

$Q = 86.346$

$Q_T = 659.133$

|                             |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                            |
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| Run Number:<br><u>15215</u> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>13</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>23:16</u><br>Stop time (RC GUI):<br><u>23:41</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <u>145</u> k<br>$e-\pi n$ evts:<br><u>2352</u> | SHMS prescale<br>pretrig: <u>117</u> k<br>$\Sigma e-\pi n$ evts:<br><u>33153</u> | COIN pretrig: <u>569</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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Comments:

Stopped due to HMS  $Q^2$  interlock trip.

$Q = 53.153$

$Q_T = 712.286 \mu c$

|                             |                                                                                                                                                                                                                                    |                                                                                                                          |                                                     |                                                                                                                    |                                                    |                                                            |                                                                                           |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Run Number:<br><u>15216</u> | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>0</u><br>PS2: <u>X</u><br>PS3: <u>0</u><br>PS4: <u>X</u><br>PS5: <u>X</u><br>PS6: <u>X</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><br>Stop time (RC GUI):<br> | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: ____ k<br>$e-\pi n$ evts: | SHMS prescale<br>pretrig: ____ k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: ____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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Comments:

Cosmics

|                             |                                                                                                                                                                                                                                    |                                                                                                  |                                                     |                                                                                                                    |                                                    |                                                            |                                                                                           |
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| Run Number:<br><u>15221</u> | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: ____<br>PS2: ____<br>PS3: ____<br>PS4: ____<br>PS5: ____<br>PS6: ____<br>Mode10: cer / fadc | Start time (RC GUI):<br><br>Stop time (RC GUI):<br> | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: ____ k<br>$e-\pi n$ evts: | SHMS prescale<br>pretrig: ____ k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: ____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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Comments:

Cosmics

|             |                                                                                                                                                                                                                                    |                                                                                                  |                                                     |                                                                                                                    |                                                    |                                                            |                                                                                           |
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| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: ____<br>PS2: ____<br>PS3: ____<br>PS4: ____<br>PS5: ____<br>PS6: ____<br>Mode10: cer / fadc | Start time (RC GUI):<br><br>Stop time (RC GUI):<br> | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: ____ k<br>$e-\pi n$ evts: | SHMS prescale<br>pretrig: ____ k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: ____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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Comments:



# $p(e, e'\pi)n$ Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22/06/28  
yy mm dd

Initials: BLH

## Continuation of Configuration:

$Q^2 = 3.85, W = 3.07, x = 0.3$

high-6, SHMS Center

This sheet is only to be used to continue a running configuration.

LD-

|                             |                                                                                                                                                                                                                                               |                                                                                    |                                                               |                                                                                                                                          |                                               |                                                    |                                                                                                 |
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| Run Number:<br><b>15222</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: -1<br>PS4: 8<br>PS5: 0<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>21:31<br>Stop time (RC GUI):<br>21:58 | <input checked="" type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 29 k<br>$e-\pi n$ evts: | SHMS prescale pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
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Comments:

No stable beam, dropped to 7mA for Hall D

|                             |                                                                                                                                                                                                                                               |                                                                                    |                                                               |                                                                                                                    |                                            |                                                    |                                                                                                 |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|---------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15223</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: -1<br>PS4: 8<br>PS5: 0<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>22:42<br>Stop time (RC GUI):<br>23:08 | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>$e-\pi n$ evts: | SHMS prescale pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
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Comments:

|                             |                                                                                                                                                                                                                                    |                                                                                    |                                                               |                                                                                                                                                     |                                                    |                                                             |                                                                                                    |
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| Run Number:<br><b>15224</b> | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 12<br>PS2: -1<br>PS3: -1<br>PS4: 8<br>PS5: 0<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>23:09<br>Stop time (RC GUI):<br>23:39 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 29 k<br>$e-\pi n$ evts: 5041 | SHMS prescale pretrig: 46 k<br>$\Sigma e-\pi n$ evts: 33657 | COIN pretrig: 82 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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Comments:

10 minutes of beam at 35 nA

$Q = 10.472$

$Q_T = 722.758$

|                             |                                                                                                                                                                                                                                               |                                                                                    |                                                              |                                                                                                                                                     |                                                     |                                                              |                                                                                                     |
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| Run Number:<br><b>15225</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 13<br>PS2: -1<br>PS3: -1<br>PS4: 8<br>PS5: 0<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>23:47<br>Stop time (RC GUI):<br>0:49 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 156 k<br>$e-\pi n$ evts: 2564 | SHMS prescale pretrig: 123 k<br>$\Sigma e-\pi n$ evts: 36221 | COIN pretrig: 326 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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Comments:

really scruffy beam, 30 or 20 nA.

$Q = 56.888$

$Q_T = 779.646$

|                             |                                                                                                                                                                                                                                               |                                                                                    |                                                     |                                                                                                                                          |                                            |                                                    |                                                                                                 |
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| Run Number:<br><b>15226</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 13<br>PS2: -1<br>PS3: -1<br>PS4: 8<br>PS5: 0<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>0:52<br>Stop time (RC GUI): | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>$e-\pi n$ evts: | SHMS prescale pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
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Comments:

no beam

|                             |                                                                                                                                                                                                                                               |                                                                                    |                                                             |                                                                                                                                                     |                                                     |                                                              |                                                                                                     |
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| Run Number:<br><b>15227</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 13<br>PS2: -1<br>PS3: -1<br>PS4: 8<br>PS5: 0<br>PS6: -1<br>Mode10: cer / fadc | Start time (RC GUI):<br>0:59<br>Stop time (RC GUI):<br>2:01 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 227 k<br>$e-\pi n$ evts: 3917 | SHMS prescale pretrig: 180 k<br>$\Sigma e-\pi n$ evts: 40138 | COIN pretrig: 564 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|

Comments:

$Q = 83.127$   
 $Q_T = 862.773$



# $p(e,e'\pi)n$ Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22 / 06 / 29  
yy mm dd

Initials: NH

## Continuation of Configuration:

$Q^2=3.85$ ,  $W=3.07$   $x=0.31$   
high  $c$ , shms center

LD'

This sheet is only to be used to continue a running configuration.

|                             |                                                                                                                                                                                                                                              |                                                                                                                         |                                                                           |                                                                                                                                                     |                                                                  |                                                                           |                                                                                                            |
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| Run Number:<br><b>15228</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: <b>13</b><br>PS2: <b>X</b><br>PS3: _____<br>PS4: <b>8</b><br>PS5: <b>0</b><br>PS6: <b>-1</b><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>2:01</b><br>Stop time (RC GUI):<br><b>2:31</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <b>97</b> k<br>$e-\pi n$ evts: <b>1742</b> | SHMS prescale pretrig: <b>76</b> k<br>$\Sigma e-\pi n$ evts: <b>41880</b> | COIN pretrig: <b>210</b> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|

$Q=35.232$   
 $Q_T=898.005$

|                             |                                                                                                                                                                                                                                              |                                                                                                                           |                                                                           |                                                                                                                                                     |                                                                  |                                                                        |                                                                                                           |
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| Run Number:<br><b>15229</b> | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input checked="" type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: <b>10</b><br>PS2: <b>X</b><br>PS3: <b>5</b><br>PS4: <b>0</b><br>PS5: <b>0</b><br>PS6: <b>2</b><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>2:41</b><br>Stop time (RC GUI):<br><b>3:48</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <b>262</b> k<br>$e-\pi n$ evts: <b>275</b> | SHMS prescale pretrig: <b>218</b> k<br>$\Sigma e-\pi n$ evts: <b>/</b> | COIN pretrig: <b>56</b> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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$Q=72.468$

|             |                                                                                                                                                                                                                                   |                                                                                                        |                                             |                                                                                                                    |                                                        |                                                                |                                                                                            |
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| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br>Stop time (RC GUI): | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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|             |                                                                                                                                                                                                                                   |                                                                                                        |                                             |                                                                                                                    |                                                        |                                                                |                                                                                            |
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| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br>Stop time (RC GUI): | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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|             |                                                                                                                                                                                                                                   |                                                                                                        |                                             |                                                                                                                    |                                                        |                                                                |                                                                                            |
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| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br>Stop time (RC GUI): | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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|             |                                                                                                                                                                                                                                   |                                                                                                        |                                             |                                                                                                                    |                                                        |                                                                |                                                                                            |
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| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br>Stop time (RC GUI): | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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# $p(e,e'\pi)n$ Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22/06/29  
yy mm dd

Initials: NH

Use a separate sheet for each configuration.

Configuration Name: \_\_\_\_\_

$Q^2 = 3.85$ ,  $W = 3.07$ ,  $x = 0.31$

high  $\epsilon$  (11.91 left)

$E_{\text{beam}}$ : 10.560 GeV

$I_{\text{beam}}$ : \_\_\_\_\_  $\mu\text{A}$

Purpose:

☒ Production

☐ Test (e.g. DAQ, Detector)

☐ Optics (SHMS / HMS)

☐ Other: \_\_\_\_\_

Raster: ☒ On ☐ Off  
Size: 2x2

Beam position and angle on target:

|        |    |        |
|--------|----|--------|
| 3H07A  | X  | Y      |
|        | mm | mm     |
| Nomin: |    | Nomin: |
| 3H07C  | X  | Y      |
|        | mm | mm     |
| Nomin: |    | Nomin: |

HMS

SHMS

|                                       |                                                      |                     |                                                      |
|---------------------------------------|------------------------------------------------------|---------------------|------------------------------------------------------|
| Q1                                    | I-SET (from PSU)<br>513.88 A<br>B-HALL<br>6.68480 T  | HB                  | I-SET (from PSU)<br>2206.05 A<br>B-HALL<br>13.947 kg |
|                                       | I-SET (from PSU)<br>408.59 A<br>B-HALL<br>-0.78985 T |                     | I-SET (from PSU)<br>1376.36 A<br>B-HALL<br>-4.719 kg |
| Q2                                    | Q1                                                   | Q2                  | Q3                                                   |
|                                       |                                                      |                     |                                                      |
| D                                     | Q3                                                   | D                   | D                                                    |
|                                       |                                                      |                     |                                                      |
| If momentum increased:                |                                                      | I-SET (from PSU)    |                                                      |
| <input type="checkbox"/> HMS cycled?  |                                                      | 2085.56 A           |                                                      |
| <input type="checkbox"/> SHMS cycled? |                                                      | B-NMR<br>-15.289 kg |                                                      |

Run Number:

15230

- ☐ LH2 10cm  
☐ LD2 10cm  
☒ Dummy 10cm  
☐ C 0.5% r.l.  
☐ Optics \_\_\_\_\_ cm  
☐ \_\_\_\_\_

PS1: 9  
PS2: 1  
PS3: 5  
PS4: 0  
PS5: 0  
PS6: 0  
Mode10: cer / fadc

Start time (RC GUI):

4:02

Stop time (RC GUI):

5:02

- ☒ Settings Verified?  
☒ HV OK?  
☒ 50k OK?

HMS prescale  
pretrig: 240 k

$e-\pi n$  evts:  
106

SHMS prescale  
pretrig: 72 k

$\Sigma e-\pi n$  evts:  
106

COIN  
pretrig: 43 k

- ☒ Data ok  
☐ Junk

Comments:

last ~ 7min were beam down

$Q = 66.323 \text{ mC}$

Run Number:

15231

- ☐ LH2 10cm  
☒ LD2 10cm  
☐ Dummy 10cm  
☐ C 0.5% r.l.  
☐ Optics \_\_\_\_\_ cm  
☐ \_\_\_\_\_

PS1: 9  
PS2: 1  
PS3: 5  
PS4: 0  
PS5: 0  
PS6: 0  
Mode10: cer / fadc

Start time (RC GUI):

5:34

Stop time (RC GUI):

6:33

- ☐ Settings Verified?  
☐ HV OK?  
☐ 50k OK?

HMS prescale  
pretrig: \_\_\_\_\_ k

$e-\pi n$  evts:  
#

SHMS prescale  
pretrig: \_\_\_\_\_ k

$\Sigma e-\pi n$  evts:  
#

COIN  
pretrig: \_\_\_\_\_ k

- ☐ Data ok  
☒ Junk

Comments:

bad prescales

$25 \mu\text{A}$

Run Number:

15232

- ☐ LH2 10cm  
☒ LD2 10cm  
☐ Dummy 10cm  
☐ C 0.5% r.l.  
☐ Optics \_\_\_\_\_ cm  
☐ \_\_\_\_\_

PS1: 11  
PS2: X  
PS3: 5  
PS4: 8  
PS5: 0  
PS6: 0  
Mode10: cer / fadc

Start time (RC GUI):

5:34

Stop time (RC GUI):

6:33

- ☒ Settings Verified?  
☒ HV OK?  
☒ 50k OK?

HMS prescale  
pretrig: 187 k

$e-\pi n$  evts:  
1830

SHMS prescale  
pretrig: 214 k

$\Sigma e-\pi n$  evts:  
1830

COIN  
pretrig: 185 k

- ☒ Data ok  
☐ Junk

Comments:

$Q = 68.032 \text{ mC}$

Run Number:

15233

- ☐ LH2 10cm  
☒ LD2 10cm  
☐ Dummy 10cm  
☐ C 0.5% r.l.  
☐ Optics \_\_\_\_\_ cm  
☐ \_\_\_\_\_

PS1: 11  
PS2: X  
PS3: 8  
PS4: 8  
PS5: 0  
PS6: 0  
Mode10: cer / fadc

Start time (RC GUI):

6:35

Stop time (RC GUI):

7:31

- ☒ Settings Verified?  
☒ HV OK?  
☒ 50k OK?

HMS prescale  
pretrig: 170 k

$e-\pi n$  evts:  
1691

SHMS prescale  
pretrig: 195 k

$\Sigma e-\pi n$  evts:  
3581

COIN  
pretrig: 171 k

- ☒ Data ok  
☐ Junk

Comments:

Ended w long beam down

$Q = 62.10 \text{ mC}$   
 $Q_1 = 130.141$



# p(e,e' $\pi$ )n Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22/06/29  
yy mm dd

Initials: NH  
MMO

## Continuation of Configuration:

$$Q^2 = 3.85, W = 3.07, x = 0.37$$

LD

This sheet is only to be used to continue a running configuration.

high ~~BE~~ E shows left

|                                          |                                                                                                                                                                                                                                                          |                                                                                                                              |                                                                           |                                                                                                                                          |                                                        |                                                                |                                                                                            |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------|----------------------------------------------------------------|--------------------------------------------------------------------------------------------|
| Run Number:<br><u>15234</u>              | <input checked="" type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>11</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>8:00</u><br>Stop time (RC GUI):<br><u>8:05</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments: <u>FADC mode 10</u> <u>LD-</u> |                                                                                                                                                                                                                                                          |                                                                                                                              |                                                                           |                                                                                                                                          |                                                        |                                                                |                                                                                            |

|                                              |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                           |                                                                                                                                                     |                                                                 |                                                                          |                                                                                                           |
|----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------|--------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------|
| Run Number:<br><u>15235</u>                  | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>11</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>8:06</u><br>Stop time (RC GUI):<br><u>9:08</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>59</u> k<br>$e-\pi n$ evts: <u>597</u> | SHMS prescale pretrig: <u>67</u> k<br>$\Sigma e-\pi n$ evts: <u>4178</u> | COIN pretrig: <u>85</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| Comments: <u>Very little beam</u> <u>LD-</u> |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                           |                                                                                                                                                     |                                                                 |                                                                          |                                                                                                           |

|                                                                                                 |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                   |                                                                           |                                                                                                                         |
|-------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------|
| Run Number:<br><u>15236</u>                                                                     | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>11</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>18:10</u><br>Stop time (RC GUI):<br><u>19:14</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>111</u> k<br>$e-\pi n$ evts: <u>1150</u> | SHMS prescale pretrig: <u>125</u> k<br>$\Sigma e-\pi n$ evts: <u>5328</u> | COIN pretrig: <u>110</u> k<br><input checked="" type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk ? |
| Same PS, assume we get to 30 $\mu A$ (start 15 $\mu A$ ) <u>Q = 40.012</u> <u>Unstable Beam</u> |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                   |                                                                           |                                                                                                                         |

|                                   |                                                                                                                                                                                                                                               |                                                                                                                              |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                                       |
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| Run Number:<br><u>15237</u>       | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>11</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><br>Stop time (RC GUI):<br><br> | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
| Comments: <u>Junk, coda died.</u> |                                                                                                                                                                                                                                               |                                                                                                                              |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                                       |

|                                      |                                                                                                                                                                                                                                    |                                                                                                        |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                                       |
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| Run Number:<br><u>15238</u>          | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br><br>Stop time (RC GUI):<br><br> | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
| Comments: <u>Junk, No pre-scales</u> |                                                                                                                                                                                                                                    |                                                                                                        |                                                         |                                                                                                                    |                                                        |                                                                |                                                                                                       |

|                                                                                   |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                 |                                                                          |                                                                                                                      |
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| Run Number:<br><u>15239</u>                                                       | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: <u>11</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>19:19</u><br>Stop time (RC GUI):<br><u>20:12</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>45</u> k<br>$e-\pi n$ evts: <u>421</u> | SHMS prescale pretrig: <u>52</u> k<br>$\Sigma e-\pi n$ evts: <u>5742</u> | COIN pretrig: <u>47</u> k<br><input checked="" type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
| Stable <del>25</del> 35 $\mu A$ Beam current ramping up - Different Beam Currents |                                                                                                                                                                                                                                               |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                 |                                                                          |                                                                                                                      |

# p(e,e' $\pi$ )n Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22/06/29  
yy mm dd

Initials: CAM

## Continuation of Configuration:

$Q^2 = 3.85$ ,  $W = 3.07$ ,  $x = 0.37$

high- $\epsilon$  SHMS-Left

LD-

This sheet is only to be used to continue a running configuration.

|                             |                                                                                                                                                                                                             |                                                                                                                              |                                                                                   |                                                                                                                                                     |                                                                   |                                                                           |                                                                                                            |
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| Run Number:<br><b>15240</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm | PS1: <u>11</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>20:13:29</u><br>Stop time (RC GUI):<br><u>21:11:42</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>110</u> k<br>$e-\pi n$ evts: <u>1101</u> | SHMS prescale pretrig: <u>126</u> k<br>$\Sigma e-\pi n$ evts: <u>6850</u> | COIN pretrig: <u>138</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|

Current to 35  $\mu$ A

unstable beam

$Q = 39.745$

? total = 2672

|                             |                                                                                                                                                                                                             |                                                                                                                              |                                                                                   |                                                                                                                                                     |                                                                  |                                                               |                                                                                                            |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15241</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm | PS1: <u>11</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>21:12:08</u><br>Stop time (RC GUI):<br><u>21:47:42</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>100</u> k<br>$e-\pi n$ evts: <u>990</u> | SHMS prescale pretrig: <u>116</u> k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: <u>114</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|

30  $\mu$ A

Beam down

$Q = 36.741$

? total = 3662

|                             |                                                                                                                                                                                                             |                                                                                                                              |                                                                |                                                                                                                                          |                                            |                                                    |                                                                                      |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------|
| Run Number:<br><b>15242</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm | PS1: <u>11</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>22:00:53</u><br>Stop time (RC GUI): | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>$e-\pi n$ evts: | SHMS prescale pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------|

~~30  $\mu$ A~~

JUNK

|                             |                                                                                                                                                                                                             |                                                                                                                              |                                                                                   |                                                                                                                                                     |                                                                   |                                                                         |                                                                                                            |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15243</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm | PS1: <u>11</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>22:08:15</u><br>Stop time (RC GUI):<br><u>22:08:23</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>217</u> k<br>$e-\pi n$ evts: <u>2241</u> | SHMS prescale pretrig: <u>249</u> k<br>$\Sigma e-\pi n$ evts: <u>73</u> | COIN pretrig: <u>236</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|-------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|

Interlock HB- Last minute or two

$Q = 72.317$

$Q_T = 7267.622$  ? total = 5903

|                             |                                                                                                                                                                                                             |                                                                                                                           |                                                                           |                                                                                                                                                     |                                                                   |                                                                           |                                                                                                            |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15244</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm | PS1: <u>11</u><br>PS2: <u>X</u><br>PS3: <u>X</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>0</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>0:33</u><br>Stop time (RC GUI):<br><u>1:33</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>246</u> k<br>$e-\pi n$ evts: <u>2380</u> | SHMS prescale pretrig: <u>244</u> k<br>$\Sigma e-\pi n$ evts: <u>4733</u> | COIN pretrig: <u>266</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|

$\sim 30$  mC

$Q = 8942$

$Q_T = 357.443$

|                             |                                                                                                                                                                                                             |                                                                                                                           |                                                                           |                                                                                                                                                     |                                                                   |                                                                            |                                                                                                            |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15245</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm | PS1: <u>11</u><br>PS2: <u>X</u><br>PS3: <u>X</u><br>PS4: <u>8</u><br>PS5: <u>0</u><br>PS6: <u>0</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><u>1:33</u><br>Stop time (RC GUI):<br><u>2:05</u> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>108</u> k<br>$e-\pi n$ evts: <u>1084</u> | SHMS prescale pretrig: <u>125</u> k<br>$\Sigma e-\pi n$ evts: <u>10817</u> | COIN pretrig: <u>118</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|

decel beam down @ end (~5 min)

$Q = 39.582$

$Q_T = 397.025$



# p(e,e' $\pi$ )n Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22/06/30  
yy mm dd

Initials: NH

## Continuation of Configuration:

$Q^2 = 3.85$ ,  $W = 3.08$ ,  $x = 0.37$

This sheet is only to be used to continue a running configuration.

high  $\theta$ , shims left

|                             |                                                                                                                                                                                                                                               |                                                                                                                           |                                                             |                                                                                                                                                     |                                                         |                                                                   |                                                                                                    |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15246</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 11<br>PS2: $\backslash$<br>PS3: $\backslash$<br>PS4: 8<br>PS5: 0<br>PS6: $\backslash$<br>Mode10: $\text{csp}$ / fadc | Start time (RC GUI):<br>2:14<br>Stop time (RC GUI):<br>2:27 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: 27 k<br>$e-\pi n$ evts:<br>272 | SHMS prescale<br>pretrig: 31 k<br>$\Sigma e-\pi n$ evts:<br>11089 | COIN pretrig: 33 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|

Comments:

mostly beam off

$Q = 9.962$

$Q_T = 406.987$

|                             |                                                                                                                                                                                                                                               |                                                                                                                 |                                                             |                                                                                                                                                     |                                                           |                                                                    |                                                                                                     |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15247</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 11<br>PS2: $\backslash$<br>PS3: $\backslash$<br>PS4: 8<br>PS5: 0<br>PS6: -1<br>Mode10: $\text{csp}$ / fadc | Start time (RC GUI):<br>2:29<br>Stop time (RC GUI):<br>3:30 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: 218 k<br>$e-\pi n$ evts:<br>2151 | SHMS prescale<br>pretrig: 251 k<br>$\Sigma e-\pi n$ evts:<br>13240 | COIN pretrig: 237 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|

Comments:

$Q = 79.572$

$Q_T = 486.559$

|                             |                                                                                                                                                                                                                                               |                                                                                                                 |                                                             |                                                                                                                                                     |                                                         |                                                                   |                                                                                                    |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15248</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 11<br>PS2: $\backslash$<br>PS3: $\backslash$<br>PS4: 8<br>PS5: 0<br>PS6: -1<br>Mode10: $\text{csp}$ / fadc | Start time (RC GUI):<br>3:35<br>Stop time (RC GUI):<br>3:46 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: 43 k<br>$e-\pi n$ evts:<br>412 | SHMS prescale<br>pretrig: 50 k<br>$\Sigma e-\pi n$ evts:<br>13652 | COIN pretrig: 47 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|

Comments:

HMS  $Q_1$  interlocked @ end of run

$Q = 16.019$

$Q_T = 502.578$

|                             |                                                                                                                                                                                                                                               |                                                                                                                 |                                                     |                                                                                                                                          |                                                                      |                                                          |                                                                                                 |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15249</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 11<br>PS2: $\backslash$<br>PS3: $\backslash$<br>PS4: 8<br>PS5: 0<br>PS6: -1<br>Mode10: $\text{csp}$ / fadc | Start time (RC GUI):<br>3:48<br>Stop time (RC GUI): | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: 153 k<br>$e-\pi n$ evts:<br><del>2886</del> | SHMS prescale<br>pretrig: 18 k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------------------------------------------------|

Comments:

$Q_1$  was ramping

|                             |                                                                                                                                                                                                                                               |                                                                                                                 |                                                     |                                                                                                                                          |                                               |                                                       |                                                                                                 |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15250</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 11<br>PS2: $\backslash$<br>PS3: $\backslash$<br>PS4: 8<br>PS5: 0<br>PS6: -1<br>Mode10: $\text{csp}$ / fadc | Start time (RC GUI):<br>4:11<br>Stop time (RC GUI): | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: k<br>$e-\pi n$ evts: | SHMS prescale<br>pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------|

Comments:

Beam down just after start.

|                             |                                                                                                                                                                                                                                               |                                                                                                                 |                                                     |                                                                                                                                          |                                               |                                                       |                                                                                                 |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15251</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm<br><input type="checkbox"/> _____ | PS1: 11<br>PS2: $\backslash$<br>PS3: $\backslash$<br>PS4: 8<br>PS5: 0<br>PS6: -1<br>Mode10: $\text{csp}$ / fadc | Start time (RC GUI):<br>4:43<br>Stop time (RC GUI): | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: k<br>$e-\pi n$ evts: | SHMS prescale<br>pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
|-----------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------|-------------------------------------------------------------------------------------------------|

Comments:

no beam

# p(e,e'π)n Run Sheet

can be found at lichen.phys.uregina.ca/~huberg/fpi/

Date: 22 / 06 / 30  
yy mm dd

Initials: NH

## Continuation of Configuration:

$Q^2 = 3.85$ ,  $W = 3.07$ ,  $x = 0.37$

high E, shms left

LD

This sheet is only to be used to continue a running configuration.

|                      |                                                                                                                                                                                                             |                                                                                 |                                                             |                                                                                                                                                     |                                                   |                                                             |                                                                                                    |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Run Number:<br>15252 | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm | PS1: 11<br>PS2: 1<br>PS3: 1<br>PS4: 8<br>PS5: 0<br>PS6: 0<br>Mode10: cer / fadc | Start time (RC GUI):<br>5:19<br>Stop time (RC GUI):<br>5:38 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 31 k<br>$e-\pi n$ evts: 322 | SHMS prescale pretrig: 36 k<br>$\Sigma e-\pi n$ evts: 13974 | COIN pretrig: 40 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------|-------------------------------------------------------------|----------------------------------------------------------------------------------------------------|

not much beam, long down @ end

$Q = 11.296$   
 $Q_T = 513.874$

|                      |                                                                                                                                                                                                             |                                                                                 |                                                               |                                                                                                                                          |                                            |                                                    |                                                                                                 |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------|
| Run Number:<br>15253 | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm | PS1: 11<br>PS2: 1<br>PS3: 1<br>PS4: 8<br>PS5: 0<br>PS6: 1<br>Mode10: cer / fadc | Start time (RC GUI):<br>22:29<br>Stop time (RC GUI):<br>22:34 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: k<br>$e-\pi n$ evts: | SHMS prescale pretrig: k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------|----------------------------------------------------|-------------------------------------------------------------------------------------------------|

started at 30mA, then went up to 70mA. Setting prescalers.

JUNK

|                      |                                                                                                                                                                                                             |                                                                                 |                                                               |                                                                                                                                                     |                                                     |                                                              |                                                                                                     |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Run Number:<br>15254 | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm | PS1: 12<br>PS2: 1<br>PS3: 1<br>PS4: 9<br>PS5: 0<br>PS6: 1<br>Mode10: cer / fadc | Start time (RC GUI):<br>22:38<br>Stop time (RC GUI):<br>23:40 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 166 k<br>$e-\pi n$ evts: 3226 | SHMS prescale pretrig: 199 k<br>$\Sigma e-\pi n$ evts: 17200 | COIN pretrig: 578 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|

$I = 60 \text{ mA}$

$Q = 33.397$   
 $Q_T = 636.455$

|                      |                                                                                                                                                                                                             |                                                                                 |                                                               |                                                                                                                                                     |                                                    |                                                             |                                                                                                     |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Run Number:<br>15255 | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm | PS1: 12<br>PS2: 1<br>PS3: 1<br>PS4: 9<br>PS5: 0<br>PS6: 1<br>Mode10: cer / fadc | Start time (RC GUI):<br>23:41<br>Stop time (RC GUI):<br>00:21 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 75 k<br>$e-\pi n$ evts: 1411 | SHMS prescale pretrig: 90 k<br>$\Sigma e-\pi n$ evts: 18611 | COIN pretrig: 261 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|

$I = 60 \text{ mA}$

$Q = 55.197$   
 $Q_T = 691.652$

|                      |                                                                                                                                                                                                             |                                                                                 |                                                               |                                                                                                                                                     |                                                     |                                                              |                                                                                                     |
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| Run Number:<br>15256 | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm | PS1: 12<br>PS2: 1<br>PS3: 1<br>PS4: 9<br>PS5: 0<br>PS6: 1<br>Mode10: cer / fadc | Start time (RC GUI):<br>00:24<br>Stop time (RC GUI):<br>01:24 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 138 k<br>$e-\pi n$ evts: 2639 | SHMS prescale pretrig: 164 k<br>$\Sigma e-\pi n$ evts: 21250 | COIN pretrig: 462 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|

$I = 55 \text{ mA}$

$Q = 32.353$   
 $Q_T = 124.005$

|                      |                                                                                                                                                                                                             |                                                                                 |                                                               |                                                                                                                                                     |                                                    |                                                             |                                                                                                     |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Run Number:<br>15257 | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____ cm | PS1: 12<br>PS2: 1<br>PS3: 1<br>PS4: 9<br>PS5: 0<br>PS6: 1<br>Mode10: cer / fadc | Start time (RC GUI):<br>01:28<br>Stop time (RC GUI):<br>01:49 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 62 k<br>$e-\pi n$ evts: 1209 | SHMS prescale pretrig: 74 k<br>$\Sigma e-\pi n$ evts: 22459 | COIN pretrig: 200 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------|---------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|

SHMS Dipole interlock  $Q_T$  (15232, 33, 35, 41, 44, 45, 46, 47, 48, 52, 54, 55, 56, 157, 57) = 838.499 MC



# p(e,e' $\pi$ )n Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22/07/1  
yy mm dd

Initials: KAA

## Continuation of Configuration:

$Q^2=3.85$ ,  $W=3.07$ ,  $X=0.37$

high  $\epsilon$  SHMS Left

This sheet is only to be used to continue a running configuration.

|                             |                                                                                                                                                                                                                                              |                                                                                                                             |                                                                             |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                            |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|
| Run Number:<br><b>15258</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>9</u><br>PS5: <u>0</u><br>PS6: <u>1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>02:56</b><br>Stop time (RC GUI):<br><b>03:57</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <b>165</b> k<br>$e-\pi n$ evts:<br><b>3120</b> | SHMS prescale<br>pretrig: <b>196</b> k<br>$\Sigma e-\pi n$ evts:<br><b>25579</b> | COIN pretrig: <b>543</b> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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55  $\mu$ A

? Full run day says that the total charge from 15232 to 15258 = 959.579 mC

$Q=34.152$ ,  $Q_T=872.651$

|                             |                                                                                                                                                                                                                                              |                                                                                                                             |                                                                             |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                            |
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| Run Number:<br><b>15259</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>9</u><br>PS5: <u>0</u><br>PS6: <u>1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>03:57</b><br>Stop time (RC GUI):<br><b>04:57</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <b>155</b> k<br>$e-\pi n$ evts:<br><b>2942</b> | SHMS prescale<br>pretrig: <b>184</b> k<br>$\Sigma e-\pi n$ evts:<br><b>28521</b> | COIN pretrig: <b>510</b> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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55  $\mu$ A, total charge is 1073.287 mC

$Q=31.937$  113.708 mC  
 $Q_T=904.59$

|                             |                                                                                                                                                                                                                                              |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                            |
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| Run Number:<br><b>15260</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>9</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>04:58</b><br>Stop time (RC GUI):<br><b>06:00</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <b>137</b> k<br>$e-\pi n$ evts:<br><b>2722</b> | SHMS prescale<br>pretrig: <b>162</b> k<br>$\Sigma e-\pi n$ evts:<br><b>31243</b> | COIN pretrig: <b>449</b> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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55  $\mu$ A

$Q_{total} = 1173.496$  mC

$Q=100.209$  mC

|                             |                                                                                                                                                                                                                                              |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                            |
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| Run Number:<br><b>15261</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>9</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>06:00</b><br>Stop time (RC GUI):<br><b>07:00</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <b>139</b> k<br>$e-\pi n$ evts:<br><b>2670</b> | SHMS prescale<br>pretrig: <b>164</b> k<br>$\Sigma e-\pi n$ evts:<br><b>33913</b> | COIN pretrig: <b>457</b> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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55  $\mu$ A

$Q_{Tot} = 1275.046$  mC

$Q=101.550$  mC

|                             |                                                                                                                                                                                                                                              |                                                                                                                              |                                                                             |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                            |
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| Run Number:<br><b>15262</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>9</u><br>PS5: <u>0</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>07:00</b><br>Stop time (RC GUI):<br><b>08:00</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <b>153</b> k<br>$e-\pi n$ evts:<br><b>2836</b> | SHMS prescale<br>pretrig: <b>181</b> k<br>$\Sigma e-\pi n$ evts:<br><b>36749</b> | COIN pretrig: <b>498</b> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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$Q_{Total} = 1386.611$  mC

$Q=111.565$  mC

|                             |                                                                                                                                                                                                                                              |                                                                                                                             |                                                                             |                                                                                                                                                     |                                                                         |                                                                                  |                                                                                                            |
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| Run Number:<br><b>15263</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>9</u><br>PS5: <u>0</u><br>PS6: <u>7</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>08:00</b><br>Stop time (RC GUI):<br><b>09:00</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale<br>pretrig: <b>149</b> k<br>$e-\pi n$ evts:<br><b>1493</b> | SHMS prescale<br>pretrig: <b>181</b> k<br>$\Sigma e-\pi n$ evts:<br><b>38242</b> | COIN pretrig: <b>498</b> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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Total  $Q_T =$

1443.3

$Q=56.689$

# $p(e,e'\pi)n$ Run Sheet

can be found at [lichen.phys.uregina.ca/~huberg/fpi/](http://lichen.phys.uregina.ca/~huberg/fpi/)

Date: 22/07/01  
yy mm dd

Initials: BD

## Continuation of Configuration:

$Q^2 = 3.85$ ,  $W = 3.07$ ,  $x = 0.37$

high  $\epsilon$  smg Left

LD

This sheet is only to be used to continue a running configuration.

|                             |                                                                                                                                                                                                                                              |                                                                                                                              |                                                                             |                                                                                                                                          |                                                                 |                                                                           |                                                                                                           |
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| Run Number:<br><b>15269</b> | <input type="checkbox"/> LH2 10cm<br><input checked="" type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: <u>12</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>9</u><br>PS5: <u>8</u><br>PS6: <u>-1</u><br>Mode10: cer / fadc | Start time (RC GUI):<br><b>09:00</b><br>Stop time (RC GUI):<br><b>09:27</b> | <input checked="" type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: <b>17</b> k<br>$e-\pi n$ evts: <b>301</b> | SHMS prescale pretrig: <b>20</b> k<br>$\Sigma e-\pi n$ evts: <b>38543</b> | COIN pretrig: <b>62</b> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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Short run  $Q_T = 1455.45$

$Q = 12.182$

|             |                                                                                                                                                                                                                                   |                                                                                                        |                                             |                                                                                                                    |                                                        |                                                                |                                                                                            |
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| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br>Stop time (RC GUI): | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br>Stop time (RC GUI): | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br>Stop time (RC GUI): | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br>Stop time (RC GUI): | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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| Run Number: | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> Dummy 10cm<br><input type="checkbox"/> C 0.5% r.l.<br><input type="checkbox"/> Optics ____cm<br><input type="checkbox"/> _____ | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____<br>Mode10: cer / fadc | Start time (RC GUI):<br>Stop time (RC GUI): | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>$e-\pi n$ evts: _____ | SHMS prescale pretrig: _____ k<br>$\Sigma e-\pi n$ evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
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