

# 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: 22.06.18  
yy mm dd

Initials: Jm

Use a separate sheet for each configuration.

HMS

SHMS

**Configuration Name:**  
Heep Coin @ 10.549 GeV

**Purpose:**  
 Production  
 Test  
 Optics  
 Other: \_\_\_\_\_

**E<sub>beam</sub>:** 10.539 GeV      **I<sub>beam</sub>:** 45  $\mu$ A

**Raster:**  On  Off  
**Size:** 2x2

**HMS** 21.67  
**p:** 5.877 From GUI       **$\theta$ (TV):** ~~0.000~~ Nearest 0.005

Beam position and angle on target:

|         |   |         |
|---------|---|---------|
| 3H07A   | X | Y       |
| -0.1 mm |   | -0.3 mm |
| Nomin:  |   | Nomin:  |
| 3H07C   | X | Y       |
| -0.7 mm |   | -0.5 mm |
| Nomin:  |   | Nomin:  |

**SHMS**  
**p:** 5.539 From GUI       **$\theta$ (TV):** 25.11 Nearest 0.005

**Collimator:**      HMS: Large  Sieve       SHMS: Large  Sieve

|    |   |   |    |
|----|---|---|----|
| Q1 | I-SET (from PSU)<br><u>766.99</u> A   | I-SET (from PSU)<br><del>1852.77</del> <u>1852.77</u> A | HB |
|    | B-HALL<br><u>1.02160</u> KG   | B-HALL<br><u>-11.738</u> KG                             |    |
| Q2 | I-SET (from PSU)<br><u>616.955</u> A  | I-SET (from PSU)<br><del>1161.13</del> <u>1161.13</u> A | Q1 |
|    | B-HALL<br><u>-1.20707</u> KG  | B-HALL<br><u>8.287</u> KG                               |    |
| Q3 | I-SET (from PSU)<br><u>296.233</u> A  | I-SET (from PSU)<br><del>1950.33</del> <u>1950.33</u> A | Q2 |
|    | B-HALL<br><u>0.59645</u> KG   | B-HALL<br><u>-18.388</u> KG                             |    |
| D  | I-READ<br><u>1911.24</u> A  | I-SET (from PSU)<br><del>1283.3</del> <u>1283.3</u> A   | Q3 |
|    | B-NMR<br><u>1.6217100</u> KG  | B-HALL<br><u>-12.406</u> KG                             |    |
|    | If momentum increased:<br><input checked="" type="checkbox"/> HMS cycled?<br><input checked="" type="checkbox"/> SHMS cycled? |   | D  |
|    |   | I-SET (from PSU)<br><del>1764.4</del> <u>1764.4</u> A   |    |
|    |   | B-NMR<br><u>12.819</u> KG                               |    |

|                                    |   |  |   |  |  |   |
|------------------------------------|---|--|---|--|--|---|
| <b>Run Number:</b><br><u>14982</u> | <input checked="" type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> MT thick 10cm<br><input type="checkbox"/> C 1.5% r.l.<br><input type="checkbox"/> C 0.5% r.l. | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____ | <b>Start time (from RC):</b><br>_____<br><b>Stop time (from RC):</b><br>_____ | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: _____ k<br>SHMS prescale pretrig: _____ k<br>e- $\pi$ n evts: _____<br>$\Sigma$ e- $\pi$ n evts: _____ | COIN pretrig: _____ k<br><input type="checkbox"/> Data ok<br><input checked="" type="checkbox"/> Junk |
|------------------------------------|---|--|---|--|--|---|

Lots of issues... ptrig 5 may have ans diff now

|                                    |   |   |   |   |  |   |
|------------------------------------|---|---|---|---|--|---|
| <b>Run Number:</b><br><u>14986</u> | <input checked="" type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> MT thick 10cm<br><input type="checkbox"/> C 1.5% r.l.<br><input type="checkbox"/> C 0.5% r.l. | PS1: <u>5</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>0</u><br>PS5: <u>0</u><br>PS6: <u>-1</u> | <b>Start time (from RC):</b><br><u>01:38:30</u><br><b>Stop time (from RC):</b><br><u>02:41:18</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>114</u> k<br>SHMS prescale pretrig: <u>253</u> k<br>e- $\pi$ n evts: <u>1274</u><br>$\Sigma$ e- $\pi$ n evts: <u>1274</u> | COIN pretrig: <u>23</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|------------------------------------|---|---|---|---|--|---|

ptrig 1628 (removed m/m wt)

|                                    |   |   |   |  |  |   |
|------------------------------------|---|---|---|--|--|---|
| <b>Run Number:</b><br><u>14987</u> | <input checked="" type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> MT thick 10cm<br><input type="checkbox"/> C 1.5% r.l.<br><input type="checkbox"/> C 0.5% r.l. | PS1: <u>5</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>0</u><br>PS5: <u>0</u><br>PS6: <u>-1</u> | <b>Start time (from RC):</b><br><u>02:42:08</u><br><b>Stop time (from RC):</b><br><u>03:51:55</u> | <input type="checkbox"/> Settings Verified?<br><input type="checkbox"/> HV OK?<br><input type="checkbox"/> 50k OK? | HMS prescale pretrig: <u>195</u> k<br>SHMS prescale pretrig: <u>417</u> k<br>e- $\pi$ n evts: <u>1579</u><br>$\Sigma$ e- $\pi$ n evts: <u>2853</u> | COIN pretrig: <u>46</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|------------------------------------|---|---|---|--|--|---|

1993 3621

|                                    |   |   |   |   |  |   |
|------------------------------------|---|---|---|---|--|---|
| <b>Run Number:</b><br><u>14988</u> | <input checked="" type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> MT thick 10cm<br><input type="checkbox"/> C 1.5% r.l.<br><input type="checkbox"/> C 0.5% r.l. | PS1: <u>5</u><br>PS2: <u>-1</u><br>PS3: <u>-1</u><br>PS4: <u>0</u><br>PS5: <u>0</u><br>PS6: <u>-1</u> | <b>Start time (from RC):</b><br><u>03:52:37</u><br><b>Stop time (from RC):</b><br><u>04:52:09</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>SHMS prescale pretrig: <u>492</u> k<br>e- $\pi$ n evts: <u>1877</u><br>$\Sigma$ e- $\pi$ n evts: <u>4730</u> | COIN pretrig: <u>41</u> k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|------------------------------------|---|---|---|---|--|---|

2348 5969

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

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Date: 22/06/18  
yy mm dd

Initials: *JM*

## Continuation of Configuration:

HeepLois @ 10.549 GeV

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

|                      |   |   |   |   |  |   |  |
|----------------------|---|---|---|---|--|---|--|
| Run Number:<br>14989 | <input checked="" type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> MT thick 10cm<br><input type="checkbox"/> C 1.5% r.l.<br><input type="checkbox"/> C 0.5% r.l. | PS1: 5<br>PS2: -1<br>PS3: -1<br>PS4: 0<br>PS5: 0<br>PS6: -1 | Start time (from RC):<br>04:52:44<br>Stop time (from RC):<br>05:51:06 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 105 k<br>$e-\pi n$ evts: 745 | SHMS prescale pretrig: 190 k<br>$\Sigma e-\pi n$ evts: 5475 | COIN pretrig: 37 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| 940      6909        |   |   |   |   |  |   |  |

|                      |   |   |   |  |  |  |   |
|----------------------|---|---|---|--|--|--|---|
| Run Number:<br>14990 | <input checked="" type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> MT thick 10cm<br><input type="checkbox"/> C 1.5% r.l.<br><input type="checkbox"/> C 0.5% r.l. | PS1: 5<br>PS2: -1<br>PS3: -1<br>PS4: 0<br>PS5: 0<br>PS6: -1 | Start time (from RC):<br>05:51:53<br>Stop time (from RC):<br>06:02:08 | <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 |
| No beam              |   |   |   |  |  |  |   |

|                      |   |   |   |   |  |   |  |
|----------------------|---|---|---|---|--|---|--|
| Run Number:<br>14991 | <input checked="" type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> MT thick 10cm<br><input type="checkbox"/> C 1.5% r.l.<br><input type="checkbox"/> C 0.5% r.l. | PS1: 5<br>PS2: -1<br>PS3: -1<br>PS4: 0<br>PS5: 0<br>PS6: -1 | Start time (from RC):<br>06:27:13<br>Stop time (from RC):<br>07:27:53 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 245 k<br>$e-\pi n$ evts: 218 | SHMS prescale pretrig: 568 k<br>$\Sigma e-\pi n$ evts: 7593 | COIN pretrig: 43 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| 2665      91574      |   |   |   |   |  |   |  |

|                      |   |   |   |   |   |  |  |
|----------------------|---|---|---|---|---|--|--|
| Run Number:<br>14992 | <input checked="" type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> MT thick 10cm<br><input type="checkbox"/> C 1.5% r.l.<br><input type="checkbox"/> C 0.5% r.l. | PS1: 5<br>PS2: -1<br>PS3: -1<br>PS4: 0<br>PS5: 0<br>PS6: -1 | Start time (from RC):<br>07:29:36<br>Stop time (from RC):<br>08:01:09 | <input checked="" type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 80 k<br>$e-\pi n$ evts: 806 | SHMS prescale pretrig: 166 k<br>$\Sigma e-\pi n$ evts: 10380 | COIN pretrig: 21 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
|----------------------|---|---|---|---|---|--|--|

|                          |  |   |  |  |  |  |   |
|--------------------------|--|---|--|--|--|--|---|
| Run Number:<br>14993     | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> MT thick 10cm<br><input type="checkbox"/> C 1.5% r.l.<br><input type="checkbox"/> C 0.5% r.l.<br><input checked="" type="checkbox"/> 10cm dummy | PS1: 0<br>PS2: -1<br>PS3: -1<br>PS4: 0<br>PS5: 0<br>PS6: -1 | Start time (from RC):<br>9:56<br>Stop time (from RC):<br>10:30 | <input type="checkbox"/> Settings Verified?<br><input checked="" type="checkbox"/> HV OK?<br><input checked="" type="checkbox"/> 50k OK? | HMS prescale pretrig: 750 k<br>$e-\pi n$ evts: 1.3 M | SHMS prescale pretrig: 700 k<br>$\Sigma e-\pi n$ evts: | COIN pretrig: 0 k<br><input checked="" type="checkbox"/> Data ok<br><input type="checkbox"/> Junk |
| EMPTY TARGET MOSTLY SHMS |  |   |  |  |  |  |   |

|   |   |  |   |  |  |  |  |
|---|---|--|---|--|--|--|--|
| Run Number:<br>14994                                | <input type="checkbox"/> LH2 10cm<br><input type="checkbox"/> LD2 10cm<br><input type="checkbox"/> MT thick 10cm<br><input type="checkbox"/> C 1.5% r.l.<br><input checked="" type="checkbox"/> C 0.5% r.l. | PS1: _____<br>PS2: _____<br>PS3: _____<br>PS4: _____<br>PS5: _____<br>PS6: _____ | Start time (from RC):<br><br>Stop time (from RC):<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: <i>POINTING FOR MARK 12 C Foil 0.5 70</i> |   |  |   |  |  |  |  |