

# 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: 19/07/18  
yy mm dd

Initials: WH

Use a separate sheet for each configuration.

**Configuration Name:** \_\_\_\_\_  
 $Q^2 = 0.375$  High E  
 $\theta = 7.6^\circ$

$E_{\text{beam}}: 4.5$  GeV     $I_{\text{beam}}: 13$   $\mu\text{A}$

**HMS**  
 $p: +0.22520$   $\theta(\text{TV}): 10.965$   
From GUI    Nearest 0.005

**SHMS**  
 $p: -2.300$   $\theta(\text{TV}): 7.645$   
From GUI    Nearest 0.005

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

**Purpose:**  
 Production  
 Test  
 Optics  
 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) 293.3307 A B-HALL 0.206 kg	I-SET (from PSU) 760.6540 A B-HALL -4.860 kg	HB
Q2	I-SET (from PSU) 233.1769 A B-HALL -0.431 kg	I-SET (from PSU) 482.9300 A B-HALL +3.441 kg	Q1
Q3	I-SET (from PSU) 113.6113 A B-HALL 0.224 kg	I-SET (from PSU) 811.1600 A B-HALL -7.694 kg	Q2
D	I-READ 688.03 A B-NMR 0.6165221 T	I-SET (from PSU) 533.7110 A B-HALL -5.228 kg	Q3
	If momentum increased: <input checked="" type="checkbox"/> HMS cycled? <input type="checkbox"/> SHMS cycled?	I-SET (from PSU) 733.8390 A B-NMR +5.343 kg	D

<b>Run Number:</b> 8701	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> HOME	PS1: 0 PS2: -1 PS3: 0 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): Stop time (from RC): 1:35	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input checked="" type="checkbox"/> Junk
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JUNK

<b>Run Number:</b> 8702	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Carbon Hole	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): 4:30 Stop time (from RC): 4:32	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
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JUNK CARBON HOLE

<b>Run Number:</b> 8703	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input checked="" type="checkbox"/> Carbon Hole	PS1: 0 PS2: -1 PS3: 0 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 04:38 Stop time (from RC): 04:33	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Carbon Hole

<b>Run Number:</b> 8704	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> _____	PS1: 13 PS2: -1 PS3: 11 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 05:32 Stop time (from RC): 6:07	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 101 k $e-\pi n$ evts: 54083	SHMS prescale pretrig: 293 k $\Sigma e-\pi n$ evts: 54083	COIN pretrig: 2.9 k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Alarm for SHMS Shower D went off for 1 minute (012 R16)

# 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: 19 / 7 / 17  
 yy mm dd

Initials: WH/JPC

## Continuation of Configuration:

$$Q^2 = 0.375 \text{ High E}$$

$$\Theta_{\text{HMS}} = 7.645 \quad \Theta_{\text{SHMS}} = 10.965$$

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

Run Number: <b>8705</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>11</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>6:13</u> Stop time (from RC): <u>7:09</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>334</u> $e-\pi n$ evts: <u>90317</u>	SHMS prescale pretrig: <u>293</u> k $\Sigma e-\pi n$ evts: <u>14400</u>	COIN pretrig: <u>9829</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <b>8706</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>7:11</u> Stop time (from RC): <u>7:43</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>39</u> k $e-\pi n$ evts: <u>13725</u>	SHMS prescale pretrig: <u>27</u> k $\Sigma e-\pi n$ evts: <u>158725</u>	COIN pretrig: <u>1718</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: <u>20 minute beam trip</u>							

Run Number: <b>8707</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>7:44</u> Stop time (from RC): <u>8:26</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>133</u> k $e-\pi n$ evts: <u>68200</u>	SHMS prescale pretrig: <u>194</u> k $\Sigma e-\pi n$ evts: <u>226325</u>	COIN pretrig: <u>8332</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <b>8708</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>8:29</u> Stop time (from RC): <u>8:29</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input checked="" type="checkbox"/> Junk
Comments: <u>Junk run. MCC took beam away for tuning for Hall C.</u>							

Run Number: <b>8709</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>15:13</u> Stop time (from RC): <u>15:09</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>57</u> k $e-\pi n$ evts: <u>32119</u>	SHMS prescale pretrig: <u>33</u> k $\Sigma e-\pi n$ evts: <u>258444</u>	COIN pretrig: <u>3317</u> <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <b>8710</b>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>16:19</u> Stop time (from RC): <u>16:47</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: <u>10 cm dummy, 40% A 90% LT</u>							

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

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

Date: 19/07/17  
yy mm dd

Initials: RNL

Use a separate sheet for each configuration.

HMS

SHMS

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

$R^2=0.375$ ,  $W=2.20$ , high  $\Sigma$

SHMS center

E<sub>beam</sub>: 4.547 GeV

I<sub>beam</sub>: 19.77  $\mu$ A

Purpose:

- Production  
 Test  
 Optics  
 Other: \_\_\_\_\_

Raster:  On  Off

Size: 2x2

HMS

p: +/- -2.252  $\theta$ (TV): 10.865  
From GUI Nearest 0.005

SHMS

p: +/- +2.300  $\theta$ (TV): 10.325  
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
	<u>-0.045</u> mm	<u>0.227</u> mm
Nomin:	<u>0.00</u>	<u>0.20</u>
3H07C	X	Y
	<u>-0.810</u> mm	<u>0.509</u> mm
Nomin:	<u>-0.90</u>	<u>0.40</u>

Collimator:

HMS: Large   
Sieve

SHMS: Large   
Sieve

Q1	I-SET (from PSU)	A	I-SET (from PSU)	A
	<u>294.13</u>		<u>760.40</u>	
Q2	B-HALL		B-HALL	
	<u>0.286</u> kg		<u>-4.860</u> kg	
Q3	I-SET (from PSU)	A	I-SET (from PSU)	A
	<u>232.96</u>		<u>482.88</u>	
D	B-HALL		B-HALL	
	<u>-0.432</u> kg		<u>3.443</u> kg	
Q1	I-SET (from PSU)	A	I-SET (from PSU)	A
	<u>113.14</u>		<u>811.64</u>	
Q2	B-HALL		B-HALL	
	<u>0.227</u> kg		<u>-7.694</u> kg	
Q3	I-READ	A	I-SET (from PSU)	A
	<u>688.03</u>		<u>533.84</u>	
D	B-NMR		B-HALL	
	<u>0.6165211</u> T		<u>-5.227</u> kg	
D	If momentum increased:		I-SET (from PSU)	A
	<input type="checkbox"/> HMS cycled?		<u>733.88</u>	
	<input type="checkbox"/> SHMS cycled?		B-NMR	
			<u>5.343</u> kg	

Run Number:

8711

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
 PS2: -1  
 PS3: 12  
 PS4: -1  
 PS5: 0  
 PS6: -1

Start time (from RC):

18:03

Stop time (from RC):

18:13

Settings Verified?

HV OK?

50k OK?

HMS prescale 21 k  
 pretrig:

$e-\pi n$  evts:

10947

SHMS prescale 21 k  
 pretrig:

$\Sigma e-\pi n$  evts:

10947

COIN pretrig: 1282 k

Data ok

Junk

Comments:

Run Number:

8712

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
 PS2: -1  
 PS3: 12  
 PS4: -1  
 PS5: 0  
 PS6: -1

Start time (from RC):

18:14

Stop time (from RC):

19:12

Settings Verified?

HV OK?

50k OK?

HMS prescale 95 k  
 pretrig:

$e-\pi n$  evts:

46891

SHMS prescale 94 k  
 pretrig:

$\Sigma e-\pi n$  evts:

57.838

COIN pretrig: 5664 k

Data ok

Junk

Comments:

Run Number:

8713

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
 PS2: -1  
 PS3: 12  
 PS4: -1  
 PS5: 0  
 PS6: -1

Start time (from RC):

19:13

Stop time (from RC):

19:31

Settings Verified?

HV OK?

50k OK?

HMS prescale 35 k  
 pretrig:

$e-\pi n$  evts:

17156

SHMS prescale 34 k  
 pretrig:

$\Sigma e-\pi n$  evts:

74994

COIN pretrig: 2111 k

Data ok

Junk

Comments:

Run Number:

8714

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
 PS2: -1  
 PS3: 12  
 PS4: -1  
 PS5: 0  
 PS6: -1

Start time (from RC):

19:35

Stop time (from RC):

20:40

Settings Verified?

HV OK?

50k OK?

HMS prescale 49 k  
 pretrig:

$e-\pi n$  evts:

24435  
(24415)

SHMS prescale 49 k  
 pretrig:

$\Sigma e-\pi n$  evts:

119409

COIN pretrig: 2969 k

Data ok

Junk

Comments:

The full replay crashed. We reran the full replay script but not  
 since the script replayed all events. # of neutrons seemed low compared to

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

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

Date: 19/07/17  
yy mm dd

Initials: RIVL

## Continuation of Configuration:

$Q^2 = 0.375$ ,  $W = 2.20$ , high  $z$   
SHMS center

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

Run Number: <b>8715</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 20:40 Stop time (from RC): 21:39	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: 28 k SHMS prescale: 27 k COIN pretrig: 1668 k $e-\pi n$ evts: 31537 $\Sigma e-\pi n$ evts: 150946	<input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:

full replay created again. it only replays part of the events.  
# of neutrons is extrapolated using run 8712. (on the plot missing mass plot it shows 18k neutrons)

Run Number: <b>8716</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 21:39 Stop time (from RC): 22:38	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale: 262 k SHMS prescale: 256 k COIN pretrig: 15600 k $e-\pi n$ evts: 127044 $\Sigma e-\pi n$ evts:	<input type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:

Run Number: <b>8717</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 22:43 Stop time (from RC): 23:44	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: 265 k SHMS prescale: 267 k COIN pretrig: 15700 k $e-\pi n$ evts: 127116 $\Sigma e-\pi n$ evts:	<input type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:

Run Number: <b>8718</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 23:45 Stop time (from RC): 00:45	<input checked="" type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: 295 k SHMS prescale: 290 k COIN pretrig: 17721 k $e-\pi n$ evts: 140677 $\Sigma e-\pi n$ evts:	<input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:

Run Number: <b>8719</b>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 12 PS2: -1 PS3: 12 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 1:10:0 Stop time (from RC): 2	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: 59 k SHMS prescale: 92 k COIN pretrig: 2410 k $e-\pi n$ evts: 4017 $\Sigma e-\pi n$ evts:	<input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:

40MA

Run Number: <b>8720</b>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 12 PS2: -1 PS3: 12 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 1:45 Stop time (from RC): 2:03	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: 42 k SHMS prescale: 43 k COIN pretrig: 1099 k $e-\pi n$ evts: 2806 $\Sigma e-\pi n$ evts:	<input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:

✘✘ 40 MA ; Belongs in the next configuration  
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# 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: 19/07/18  
yy mm dd

Initials: MM

Use a separate sheet for each configuration.

**Configuration Name:** \_\_\_\_\_  
 $Q^2 = 0.375$ ,  $W = 2.20$   
 SHMS, left

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

**E<sub>beam</sub>:** 4.547 GeV    **I<sub>beam</sub>:** 18099 μA

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

**HMS**  
**p:** +/- 2.252    **θ(TV):** 10.965  
From GUI                      Nearest 0.005

**Beam position and angle on target:**

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

**SHMS**  
**p:** +/- 2.300    **θ(TV):** 12.34  
From GUI                      Nearest 0.005

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

	HMS	SHMS	
Q1	I-SET (from PSU) <u>294.13</u> A B-HALL <u>0.288</u> KG	I-SET (from PSU) <u>760.25</u> A B-HALL <u>-4.859</u> KG	HB
Q2	I-SET (from PSU) <u>-232.96</u> A B-HALL <u>-0.432</u> KG	I-SET (from PSU) <u>-482.84</u> A B-HALL <u>3.441</u> KG	Q1
Q3	I-SET (from PSU) <u>113.14</u> A B-HALL <u>0.227</u> KG	I-SET (from PSU) <u>811.64</u> A B-HALL <u>-7.694</u> KG	Q2
D	I-READ <u>-688.56</u> A B-NMR <u>0.61652</u> T	I-SET (from PSU) <u>-533.76</u> A B-HALL <u>-5.225</u> KG	Q3
	If momentum increased: <input type="checkbox"/> HMS cycled? <input type="checkbox"/> SHMS cycled?	I-SET (from PSU) <u>733.92</u> A B-NMR <u>5.337</u> KG	D

**Run Number:** 8721

LH2 10cm    PS1: 13    Start time (from RC): 2:11     Settings Verified?    HMS prescale 37 k    SHMS prescale 27 k    COIN pretrig: 1581 k

LD2 10cm    PS2: -1    Stop time (from RC): 2:24     HV OK?     $e-\pi n$  evts: 19624     $\Sigma e-\pi n$  evts: 19624     Data ok

MT thick 10cm    PS3: 12     50k OK?     Junk

C 1.5% r.l.    PS4: -1    **Comments:** 19 μA

C 0.5% r.l.    PS5: 0     \_\_\_\_\_

\_\_\_\_\_    PS6: -1

**Run Number:** 8722

LH2 10cm    PS1: 13    Start time (from RC): 2:26     Settings Verified?    HMS prescale 165 k    SHMS prescale 119 k    COIN pretrig: 1937 k

LD2 10cm    PS2: -1    Stop time (from RC): 3:07     HV OK?     $e-\pi n$  evts: 86576     $\Sigma e-\pi n$  evts: 106200     Data ok

MT thick 10cm    PS3: 12     50k OK?     Junk

C 1.5% r.l.    PS4: -1    **Comments:** 19 μA

C 0.5% r.l.    PS5: 0     \_\_\_\_\_

\_\_\_\_\_    PS6: -1

**Run Number:** 8723

LH2 10cm    PS1: 13    Start time (from RC): 3:07     Settings Verified?    HMS prescale 235 k    SHMS prescale 169 k    COIN pretrig: 4042 k

LD2 10cm    PS2: -1    Stop time (from RC): 3:58     HV OK?     $e-\pi n$  evts: 122850     $\Sigma e-\pi n$  evts: 229050     Data ok

MT thick 10cm    PS3: 12     50k OK?     Junk

C 1.5% r.l.    PS4: -1    **Comments:** 19 μA

C 0.5% r.l.    PS5: 0     \_\_\_\_\_

\_\_\_\_\_    PS6: -1

**Run Number:** 8724

LH2 10cm    PS1: 13    Start time (from RC): 4:02     Settings Verified?    HMS prescale 95 k    SHMS prescale 68 k    COIN pretrig: 4062 k

LD2 10cm    PS2: -1    Stop time (from RC): 4:23     HV OK?     $e-\pi n$  evts: 49554     $\Sigma e-\pi n$  evts: 278604     Data ok

MT thick 10cm    PS3: 12     50k OK?     Junk

C 1.5% r.l.    PS4: -1    **Comments:** 19 μA

C 0.5% r.l.    PS5: 0     \_\_\_\_\_

\_\_\_\_\_    PS6: -1

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

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

Date: 19/07/18  
yy mm dd

Initials: MM

## Continuation of Configuration:

$Q^2 = 0.375$ ,  $W = 2.20$   
SHMS, Left 1

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

Run Number: <u>8725</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>4:24</u> Stop time (from RC): <u>5:06</u>	<input checked="" type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>225</u> k $e-\pi n$ evts: <u>98365</u>	SHMS prescale pretrig: <u>161</u> k $\Sigma e-\pi n$ evts: <u>376969</u>	COIN pretrig: <u>10765</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:

Current increased from 19  $\mu$ A to 22  $\mu$ A

Run Number: <u>8720</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>1:45</u> Stop time (from RC): <u>2:03</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>42</u> k $e-\pi n$ evts: <u>2806</u>	SHMS prescale pretrig: <u>43</u> k $\Sigma e-\pi n$ evts:	COIN pretrig: <u>2410</u> k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:

40  $\mu$ A

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

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

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

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC):  Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts:	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts:	COIN pretrig: _____ k <input type="checkbox"/> Data ok <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: 19/07/18  
yy mm dd

Initials: MM

Use a separate sheet for each configuration.

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

$Q^2 = 0.375$ ,  $W = 2.20$

SHMS - left 2

Purpose:

- Production  
 Test  
 Optics  
 Other: \_\_\_\_\_

$E_{beam}$ : 4.547 GeV

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

Raster:  On  Off

Size: 2x2

HMS

$p$ : +/- 2.252  $\theta(TV)$ : 10.965  
From GUI Nearest 0.005

SHMS

$p$ : +/- 2.30  $\theta(TV)$ : 14.225  
From GUI Nearest 0.005

Beam position and angle on target:

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

Collimator:

HMS: Large   
Sieve

SHMS: Large   
Sieve

Run Number:

8726

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
 PS2: -1  
 PS3: 12  
 PS4: -1  
 PS5: 0  
 PS6: -1

Start time (from RC):

5:12

Stop time (from RC):

5:23

Settings Verified?

HV OK?

50k OK?

HMS prescale 61 k  
pretrig: \_\_\_\_\_

$e-\pi n$  evts: 23085

SHMS prescale 31 k  
pretrig: \_\_\_\_\_

$\Sigma e-\pi n$  evts: 23085

COIN pretrig: 2281 k

Data ok

Junk

Comments:

Current changed to (25  $\mu A$ ) from 22  $\mu A$

Run Number:

8727

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
 PS2: -1  
 PS3: 12  
 PS4: -1  
 PS5: 0  
 PS6: -1

Start time (from RC):

5:24

Stop time (from RC):

5:51

Settings Verified?

HV OK?

50k OK?

HMS prescale 164 k  
pretrig: \_\_\_\_\_

$e-\pi n$  evts: 57944

SHMS prescale 84 k  
pretrig: \_\_\_\_\_

$\Sigma e-\pi n$  evts: 81029

COIN pretrig: 6300 k

Data ok

Junk

Comments:

Run Number:

8728

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
 PS2: -1  
 PS3: 12  
 PS4: -1  
 PS5: 0  
 PS6: -1

Start time (from RC):

5:52

Stop time (from RC):

6:35

Settings Verified?

HV OK?

50k OK?

HMS prescale 233 k  
pretrig: \_\_\_\_\_

$e-\pi n$  evts: 82037

SHMS prescale 118 k  
pretrig: \_\_\_\_\_

$\Sigma e-\pi n$  evts: 163066

COIN pretrig: 8975 k

Data ok

Junk

Comments:

Run Number:

8729

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
 PS2: -1  
 PS3: 12  
 PS4: -1  
 PS5: 0  
 PS6: -1

Start time (from RC):

6:35

Stop time (from RC):

7:05

Settings Verified?

HV OK?

50k OK?

HMS prescale 180 k  
pretrig: \_\_\_\_\_

$e-\pi n$  evts: 63863

SHMS prescale 92 k  
pretrig: \_\_\_\_\_

$\Sigma e-\pi n$  evts: 226,929

COIN pretrig: 6933 k

Data ok

Junk

Comments:

	HMS	SHMS	
Q1	I-SET (from PSU) <u>294.13</u> A B-HALL	I-SET (from PSU) <u>760.45</u> A B-HALL	HB
	<u>0.289</u> kG	<u>-4.860</u> kG	
Q2	I-SET (from PSU) <u>232.96</u> A B-HALL	I-SET (from PSU) <u>-482.88</u> A B-HALL	Q1
	<u>-0.432</u> kG	<u>3.441</u> kG	
Q3	I-SET (from PSU) <u>113.14</u> A B-HALL	I-SET (from PSU) <u>811.64</u> A B-HALL	Q2
	<u>0.227</u> kG	<u>-7.695</u> kG	
D	I-READ <u>-688.62</u> A B-NMR	I-SET (from PSU) <u>533.76</u> A B-HALL	Q3
	<u>0.61652</u> T	<u>-5.227</u> kG	
	If momentum increased: <input type="checkbox"/> HMS cycled? <input type="checkbox"/> SHMS cycled?	I-SET (from PSU) <u>733.92</u> A B-NMR	D
		<u>5.342</u> kG	

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

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

Date: 19/7/18  
yy mm dd

Initials: nm

## Continuation of Configuration:

$Q^2 = 0.375$ ,  $W = 2.20$   
ehms - led f.

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

Run Number: 8730	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 7:06 Stop time (from RC): 7:34	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 172 k $e-\pi n$ evts: 60642	SHMS prescale pretrig: 88 k $\Sigma e-\pi n$ evts: 287571	COIN pretrig: 6670k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: 8731	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 7:42 Stop time (from RC): 8:54	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: 40MA							

Run Number: <del>8732</del>	<input type="checkbox"/> LH2 10cm <input checked="" type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	<del>PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: 0 PS6: -1</del>	Start time (from RC):  Stop time (from RC): 	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

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

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

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

Initials:    

Use a separate sheet for each configuration.

HMS

SHMS

**Configuration Name:** \_\_\_\_\_  
 $Q^2 = 0.425$   $W = 2.20$   
 SHMS night - 2

**Purpose:**

- Production  
 Test  
 Optics  
 Other: \_\_\_\_\_

$E_{\text{beam}} = 4.5$  GeV  $I_{\text{beam}} = 40$   $\mu\text{A}$

Raster:  On  Off  
 Size:  $2 \times 2$

**HMS**  
 $p = +0.2260$   $\theta(\text{TV}) = 11.745$   
From GUI Nearest 0.005

**SHMS**  
 $p = -2.3260$   $\theta(\text{TV}) = 6.870$   
From GUI Nearest 0.005

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

Beam position and angle on target:

3H07A	X	Y
$-0.002$ mm		$0.214$ mm
Nomin:		Nomin:
3H07C	X	Y
$-0.881$ mm		$0.507$ mm
Nomin:		Nomin:

Q1	I-SET (from PSU) 289.9505 A B-HALL <del>4.86</del> $0.284$ KG	I-SET (from PSU) 769.2990 A B-HALL -4.860 KG	HB
Q2	I-SET (from PSU) 230.4816 A B-HALL -0.427 KG	I-SET (from PSU) 488.3900 A B-HALL 3.482 KG	Q1
Q3	I-SET (from PSU) 112.3045 A B-HALL 0.0222 KG	I-SET (from PSU) 820.3370 A B-HALL -7.775 KG	Q2
D	I-READ 680.61 A B-NMR 0.60940 T	I-SET (from PSU) 539.7740 A B-HALL -5.308 KG	Q3
	If momentum increased: <input type="checkbox"/> HMS cycled? <input checked="" type="checkbox"/> SHMS cycled?	I-SET (from PSU) 742.1340 A B-NMR 5.425 KG	D

Run Number: 8732	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -2 PS3: -2 PS4: -2 PS5: -2 PS6: -2	Start time (from RC): 10:30 Stop time (from RC): 10:51	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: $e-\pi n$ evts: 11459	SHMS prescale pretrig: $\Sigma e-\pi n$ evts: 11459	COIN pretrig: <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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40  $\mu\text{A}$

Run Number: 8733	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -2 PS3: -2 PS4: -2 PS5: -2 PS6: -2	Start time (from RC): 11:00 Stop time (from RC): 11:10	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 33 $e-\pi n$ evts: 11459	SHMS prescale pretrig: 67 $\Sigma e-\pi n$ evts: 11459	COIN pretrig: 2716 <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Beam current 17  $\mu\text{A}$

Run Number: 8734	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: -2 PS4: -1 PS5: -2 PS6: -1	Start time (from RC): 11:11 Stop time (from RC): 11:35	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 75 $e-\pi n$ evts: 26659	SHMS prescale pretrig: 150 $\Sigma e-\pi n$ evts: 38118	COIN pretrig: 5934 <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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17  $\mu\text{A}$

Run Number: 8735	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -2 PS3: -2 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 11:36 Stop time (from RC): 12:00	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 78 $e-\pi n$ evts: 26670	SHMS prescale pretrig: 150 $\Sigma e-\pi n$ evts: 64788	COIN pretrig: 5995 <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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17  $\mu\text{A}$

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

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

Date: \_\_\_/\_\_\_/\_\_\_  
yy mm dd

Initials: \_\_\_\_\_

## Continuation of Configuration:

$\theta^2 = 0.425$ ,  $\omega = 2.20$   
SHMS Righ-2

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

Run Number: 8736	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: -9 PS6: -1	Start time (from RC): 12:01 Stop time (from RC): 12:25	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 75 k $e-\pi n$ evts: 26940	SHMS prescale pretrig: 151 k $\Sigma e-\pi n$ evts: 91728	COIN pretrig: 5926k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: 8737	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: -9 PS6: -1	Start time (from RC): 12:25 Stop time (from RC): 12:50	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 77 k $e-\pi n$ evts: 27475	SHMS prescale pretrig: 155 k $\Sigma e-\pi n$ evts: 119203	COIN pretrig: 6113 k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: 8738	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: -9 PS6: -1	Start time (from RC): 12:50 Stop time (from RC): 13:15	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 80 k $e-\pi n$ evts: 28075	SHMS prescale pretrig: 161 k $\Sigma e-\pi n$ evts: 147278	COIN pretrig: 6391 k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: 8739	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: -9 PS6: -1	Start time (from RC): 13:16 Stop time (from RC): 13:41	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 78 k $e-\pi n$ evts: 27715	SHMS prescale pretrig: 156 k $\Sigma e-\pi n$ evts: 174943	COIN pretrig: 6187 k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: 8740	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: -9 PS6: -1	Start time (from RC): 13:42 Stop time (from RC): 14:07	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 81 k $e-\pi n$ evts: 28904	SHMS prescale pretrig: 163 k $\Sigma e-\pi n$ evts: 203897	COIN pretrig: 645k7 <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: 8741	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: -9 PS6: -1	Start time (from RC): 14:08 Stop time (from RC): 14:33	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 76 k $e-\pi n$ evts: 27740	SHMS prescale pretrig: 156 k $\Sigma e-\pi n$ evts: 231637	COIN pretrig: 6144k <input type="checkbox"/> Data ok <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: \_\_\_/\_\_\_/\_\_\_  
yy mm dd

Initials: \_\_\_\_\_

## Continuation of Configuration:

$\theta^0 = 0.425, w = 2.20$   
SHMS Right 2

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

Run Number: <b>8742</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>14:33</u> Stop time (from RC): <u>14:59</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>77</u> k $e-\pi n$ evts: <u>27784</u>	SHMS prescale pretrig: <u>156</u> k $\Sigma e-\pi n$ evts: <u>259421</u>	COIN pretrig: <u>6139</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <b>8743</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>15:00</u> Stop time (from RC):	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>76</u> k $e-\pi n$ evts: <u>27399</u>	SHMS prescale pretrig: <u>152</u> k $\Sigma e-\pi n$ evts: <u>286820</u>	COIN pretrig: <u>5974</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

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

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

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

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

# 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: 19 / 07 / 18  
yy mm dd

Initials: JZ

Use a separate sheet for each configuration.

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

$Q^2 = 0.425$   $W = 2.20$   
right - 1

Purpose:

- Production  
 Test  
 Optics  
 Other: \_\_\_\_\_

E<sub>beam</sub>: 4.547 GeV

I<sub>beam</sub>: 20 μA

Raster:  On  Off

Size: 2mm x 2mm

HMS

p: + 2.2260 θ(TV): 11.745  
From GUI Nearest 0.005

SHMS

p: 2.3260 θ(TV): 8.075  
From GUI Nearest 0.005

Collimator:

HMS: Large   
Sieve

SHMS: Large   
Sieve

Beam position and angle on target:

3H07A	X	Y
	-0.075 mm	0.273 mm
Nomin:		
3H07C	X	Y
	-0.872 mm	0.538 mm
Nomin:		

HMS

SHMS

Q1	I-SET (from PSU) B-HALL 289.9505 A 0.285 kG	A	I-SET (from PSU) B-HALL 769.2990 A -4.860 kG	A	HB
Q2	I-SET (from PSU) B-HALL 230.4816 A -0.426 kG	A	I-SET (from PSU) B-HALL 488.3900 A 3.482 kG	A	Q1
Q3	I-SET (from PSU) B-HALL 112.3045 A 0.223 kG	A	I-SET (from PSU) B-HALL 820.3370 A -7.775 kG	A	Q2
D	I-READ B-NMR 680.58 A 0.60940 T	A	I-SET (from PSU) B-HALL 539.7740 A -5.308 kG	A	Q3
	If momentum increased:		I-SET (from PSU) B-NMR 742.1340 A 5.418 kG	A	D
	<input type="checkbox"/> HMS cycled?				
	<input type="checkbox"/> SHMS cycled?				

Run Number:

8744

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
PS2: -1  
PS3: 12  
PS4: -1  
PS5: 0  
PS6: -1

Start time (from RC):

15:35

Stop time (from RC):

15:44

- Settings Verified?  
 HV OK?  
 50k OK?

HMS prescale 32 k  
pretrig:

e-πn evts:

13135

SHMS prescale 53 k  
pretrig:

Σ e-πn evts:

43135

COIN pretrig: 244 k

Data ok

Junk

Comments:

~20μA

Run Number:

8745

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
PS2: -1  
PS3: 12  
PS4: -1  
PS5: 0  
PS6: -1

Start time (from RC):

15:44

Stop time (from RC):

16:12

- Settings Verified?  
 HV OK?  
 50k OK?

HMS prescale 94 k  
pretrig:

e-πn evts:

39118

SHMS prescale 158 k  
pretrig:

Σ e-πn evts:

52253

COIN pretrig: 749 k

Data ok

Junk

Comments:

~20μA

Run Number:

8746

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
PS2: -1  
PS3: 12  
PS4: -1  
PS5: 9  
PS6: -1

Start time (from RC):

16:12

Stop time (from RC):

16:38

- Settings Verified?  
 HV OK?  
 50k OK?

HMS prescale 87 k  
pretrig:

e-πn evts:

36189

SHMS prescale 146 k  
pretrig:

Σ e-πn evts:

88442

COIN pretrig: 6834 k

Data ok

Junk

Comments:

Run Number:

8747

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
PS2: -1  
PS3: 12  
PS4: -1  
PS5: 0  
PS6: -1

Start time (from RC):

16:39

Stop time (from RC):

17:02

- Settings Verified?  
 HV OK?  
 50k OK?

HMS prescale 88 k  
pretrig:

e-πn evts:

36626

SHMS prescale 148 k  
pretrig:

Σ e-πn evts:

125068

COIN pretrig: 6932 k

Data ok

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:     /     /      
 yy mm dd

Initials:    

## Continuation of Configuration:

$Q^2 = 0.425$ ,  $W = 2.20$   
 right L

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

Run Number: <b>8748</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>17:03</u> Stop time (from RC): <u>17:39</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>84</u> k pretrig: $e-\pi n$ evts: <u>35478</u>	SHMS prescale: <u>141</u> k pretrig: $\Sigma e-\pi n$ evts: <u>160546</u>	COIN pretrig: <u>6611</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <b>8749</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>17:39</u> Stop time (from RC): <u>18:07</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>100</u> k pretrig: $e-\pi n$ evts: <u>41806</u>	SHMS prescale: <u>168</u> k pretrig: $\Sigma e-\pi n$ evts: <u>202352</u>	COIN pretrig: <u>7908</u> k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <b>8750</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>18:07</u> Stop time (from RC): <u>18:32</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>86</u> k pretrig: $e-\pi n$ evts: <u>36301</u>	SHMS prescale: <u>144</u> k pretrig: $\Sigma e-\pi n$ evts: <u>238653</u>	COIN pretrig: <u>6748</u> k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <b>8751</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>18:32</u> Stop time (from RC): <u>19:03</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>95</u> k pretrig: $e-\pi n$ evts: <u>39946</u>	SHMS prescale: <u>159</u> k pretrig: $\Sigma e-\pi n$ evts: <u>278549</u>	COIN pretrig: <u>7399</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <b>8752</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>19:04</u> Stop time (from RC): <u>19:42</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>87</u> k pretrig: $e-\pi n$ evts: <u>36854</u>	SHMS prescale: <u>146</u> k pretrig: $\Sigma e-\pi n$ evts: <u>315453</u>	COIN pretrig: <u>6760</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <b>8753</b>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>19:58</u> Stop time (from RC): <u>20:19</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>   </u> k pretrig: $e-\pi n$ evts:	SHMS prescale: <u>   </u> k pretrig: $\Sigma e-\pi n$ evts:	COIN pretrig: <u>   </u> k <input type="checkbox"/> Data ok <input checked="" type="checkbox"/> Junk
10cm Dummy, 40 $\mu$ A, beam's down about 20mins							

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

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

Date:      /      /       
 yy mm dd

Initials:     

## Continuation of Configuration:

$R^2 = 0.425$   $W = 2.20$   
 right -1

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

Run Number: <b>8754</b>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>9</u> PS6: <u>-1</u>	Start time (from RC): <u>20:20</u> Stop time (from RC): <u>22:05</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>    </u> k $e-\pi n$ evts: <u>    </u>	SHMS prescale pretrig: <u>    </u> k $\Sigma e-\pi n$ evts: <u>    </u>	COIN pretrig: <u>    </u> k <input type="checkbox"/> Data ok <input checked="" type="checkbox"/> Junk
Comments: <u>beam's down for another 2hrs 10cm Dummy. 40 uA</u>							

Run Number: <b>8755</b>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>    </u> PS2: <u>    </u> PS3: <u>    </u> PS4: <u>    </u> PS5: <u>    </u> PS6: <u>    </u>	Start time (from RC): <u>    </u> Stop time (from RC): <u>23:25</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>    </u> k $e-\pi n$ evts: <u>    </u>	SHMS prescale pretrig: <u>    </u> k $\Sigma e-\pi n$ evts: <u>    </u>	COIN pretrig: <u>    </u> k <input type="checkbox"/> Data ok <input checked="" type="checkbox"/> Junk
Comments: <u>JUNK</u>							

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>    </u> PS2: <u>    </u> PS3: <u>    </u> PS4: <u>    </u> PS5: <u>    </u> PS6: <u>    </u>	Start time (from RC): <u>23:26</u> Stop time (from RC): <u>    </u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>    </u> k $e-\pi n$ evts: <u>    </u>	SHMS prescale pretrig: <u>    </u> k $\Sigma e-\pi n$ evts: <u>    </u>	COIN pretrig: <u>    </u> k <input type="checkbox"/> Data ok <input checked="" type="checkbox"/> Junk
Comments: <u>JUNK</u>							

Run Number: <b>8757</b>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>0</u> PS5: <u>7</u> PS6: <u>-1</u>	Start time (from RC): <u>1:28</u> Stop time (from RC): <u>    </u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>    </u> k $e-\pi n$ evts: <u>    </u>	SHMS prescale pretrig: <u>    </u> k $\Sigma e-\pi n$ evts: <u>    </u>	COIN pretrig: <u>    </u> k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: <u>40 uA current</u>							

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

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

# 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: 19/07/20  
yy mm dd

Initials: V.K

Use a separate sheet for each configuration.

HMS

SHMS

**Configuration Name:**  
Q2 = 0.425, ω = 2.20  
Centre SHMS

**Purpose:**

- Production  
 Test  
 Optics  
 Other: \_\_\_\_\_

**E<sub>beam</sub>:** 4.54 GeV    **I<sub>beam</sub>:** 40 μA

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

**HMS**  
**p:** +0.226 θ(TV): 11.745  
From GUI      Nearest 0.005

**Beam position and angle on target:**

3H07A	X	Y
<u>0.029</u> mm		<u>0.200</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.88</u> mm		<u>0.523</u> mm
Nomin:		Nomin:

**SHMS**  
**p:** 0.326 θ(TV): 10.075  
From GUI      Nearest 0.005

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

Q1	I-SET (from PSU) <u>290.74A</u> B-HALL	I-SET (from PSU) <u>769.20A</u> B-HALL	HB
	<u>0.285</u> kg	<u>-4.860</u> kg	
Q2	I-SET (from PSU) <u>230.34A</u> B-HALL	I-SET (from PSU) <u>488.32A</u> B-HALL	Q1
	<u>-0.425</u> kg	<u>3.484</u> kg	
Q3	I-SET (from PSU) <u>111.86A</u> B-HALL	I-SET (from PSU) <u>820.84A</u> B-HALL	Q2
	<u>0.224</u> kg	<u>-7.775</u> kg	
D	I-READ <u>680.58A</u> B-NMR	I-SET (from PSU) <u>539.76A</u> B-HALL	Q3
	<u>0.60440T</u>	<u>-5.209</u> kg	
	If momentum increased:		D
	<input type="checkbox"/> HMS cycled?	I-SET (from PSU) <u>792.20A</u> B-NMR	
	<input type="checkbox"/> SHMS cycled?	<u>5.431</u> kg	

<b>Run Number:</b> <u>8758</u>	<input type="checkbox"/> LH2 10cm <input checked="" type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>08:59</u> Stop time (from RC): <u>2:20</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k e-πn evts: _____	SHMS prescale pretrig: _____ k Σ e-πn evts: _____	COIN pretrig: _____ k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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40 μA current dummy.

<b>Run Number:</b> <u>8759</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>2:31</u> Stop time (from RC): <u>2:41</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>367</u> k e-πn evts: <u>21900</u>	SHMS prescale pretrig: <u>46</u> k Σ e-πn evts: <u>21900</u>	COIN pretrig: <u>2207</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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20 μA current.

<b>Run Number:</b> <u>8760</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>2:42</u> Stop time (from RC): <u>3:20</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>176</u> k e-πn evts: <u>105355</u>	SHMS prescale pretrig: <u>222</u> k Σ e-πn evts: <u>127255</u>	COIN pretrig: <u>10640</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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20 μA current

<b>Run Number:</b> <u>8761</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>3:29</u> Stop time (from RC): <u>4:13</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>172</u> k e-πn evts: <u>102050</u>	SHMS prescale pretrig: <u>217</u> k Σ e-πn evts: <u>229305</u>	COIN pretrig: <u>1042</u> k <input checked="" type="checkbox"/> Data ok <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: 14/07/19  
 yy mm dd

Initials: V.L

## Continuation of Configuration:

$Q^2 = 0.428, \omega = 2.20$   
centro shms

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

Run Number: <b>8762</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>4:14</u> Stop time (from RC): <u>4:42</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <u>109</u> k SHMS prescale: <u>137</u> k e- $\pi$ n evts: <u>64344</u> $\Sigma$ e- $\pi$ n evts: <u>293649</u>	COIN pretrig: <u>6634</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:						

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

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

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

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

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale: _____ k SHMS prescale: _____ k e- $\pi$ n evts: _____ $\Sigma$ e- $\pi$ n evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <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: 14/07/19  
yy mm dd

Initials: U.K

Use a separate sheet for each configuration.

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

$Q^2 = 0.425, W = 220$   
SHMS Lead 1

Purpose:

- Production
- Test
- Optics
- Other: \_\_\_\_\_

$E_{beam} = 4.547$  GeV

$I_{beam} = 24$   $\mu$ A

Raster:  On  Off

Size: 2x2 mm

HMS

$p: +0.2226$   $\theta(TV): 11.745$   
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
0.223 mm		0.167 mm
Nomin:		Nomin:
3H07C	X	Y
-0.784 mm		0.474 mm
Nomin:		Nomin:

SHMS

$p: +2.3260$   $\theta(TV): 12.075$   
From GUI Nearest 0.005

Collimator:

HMS: Large  Sieve

SHMS: Large  Sieve

HMS

SHMS

Q1	I-SET (from PSU) 290.71 A B-HALL 0.285 kg	I-SET (from PSU) 769.10 A B-HALL 4.859 kg	HB
Q2	I-SET (from PSU) 230.34 A B-HALL 0.426 kg	I-SET (from PSU) 488.32 A B-HALL 3.484 kg	Q1
Q3	I-SET (from PSU) 111.86 A B-HALL 0.222 kg	I-SET (from PSU) 820.76 A B-HALL 7.775 kg	Q2
D	I-READ 680.50 A B-NMR 0.6094 t	I-SET (from PSU) 539.68 A B-HALL 5.309 kg	Q3
	If momentum increased:		D
	<input type="checkbox"/> HMS cycled?	I-SET (from PSU) 742.24 A B-NMR 5.431 kg	
	<input type="checkbox"/> SHMS cycled?		

Run Number:

8763

- LH2 10cm
- LD2 10cm
- MT thick 10cm
- C 1.5% r.l.
- C 0.5% r.l.

PS1: 13  
PS2: -1  
PS3: 12  
PS4: -1  
PS5: 0  
PS6: -1

Start time (from RC):

5:27

Stop time (from RC):

05:37

Settings Verified?

HV OK?

50k OK?

HMS prescale  
pretrig: k

$e-\pi n$  evts: 24205

SHMS prescale  
pretrig: k

$\Sigma e-\pi n$  evts: 24205

COIN pretrig: k

Data ok

Junk

Comments:

24  $\mu$ A current.

Run Number:

8764

- LH2 10cm
- LD2 10cm
- MT thick 10cm
- C 1.5% r.l.
- C 0.5% r.l.

PS1: 13  
PS2: -1  
PS3: 12  
PS4: -1  
PS5: 0  
PS6: -1

Start time (from RC):

5:37

Stop time (from RC):

6:24

Settings Verified?

HV OK?

50k OK?

HMS prescale  
pretrig: 188 k  
463

$e-\pi n$  evts: 99457

SHMS prescale  
pretrig: 173 k  
42

$\Sigma e-\pi n$  evts: 123662

COIN pretrig: 9730 k  
2408

Data ok

Junk

Comments:

24  $\mu$ A current.

Run Number:

8765

- LH2 10cm
- LD2 10cm
- MT thick 10cm
- C 1.5% r.l.
- C 0.5% r.l.

PS1: 13  
PS2: -1  
PS3: 12  
PS4: -1  
PS5: 0  
PS6: -1

Start time (from RC):

6:24

Stop time (from RC):

7:03

Settings Verified?

HV OK?

50k OK?

HMS prescale  
pretrig: 171 k  
157

$e-\pi n$  evts: 90607

SHMS prescale  
pretrig: 157 k

$\Sigma e-\pi n$  evts: 214269

COIN pretrig: 8866 k

Data ok

Junk

Comments:

24  $\mu$ A current.

Run Number:

8766

- LH2 10cm
- LD2 10cm
- MT thick 10cm
- C 1.5% r.l.
- C 0.5% r.l.

PS1: 13  
PS2: -1  
PS3: 12  
PS4: -1  
PS5: 0  
PS6: -1

Start time (from RC):

7:04

Stop time (from RC):

7:45

Settings Verified?

HV OK?

50k OK?

HMS prescale  
pretrig: 156 k

$e-\pi n$  evts: 79097

SHMS prescale  
pretrig: 137 k

$\Sigma e-\pi n$  evts: 293366

COIN pretrig: 7779 k

Data ok

Junk

Comments:

24  $\mu$ A current.

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

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

Date: 14/7/14  
 yy mm dd

Initials: V.K

## Continuation of Configuration:

$\alpha^2 = 0.425, \omega = 2.20$   
SHMS left

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

Run Number: <b>2767</b>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 13 PS2: -1 PS3: 12 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 7:47 Stop time (from RC):	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 23 k $e-\pi n$ evts: 2217	SHMS prescale pretrig: 19 k $\Sigma e-\pi n$ evts:	COIN pretrig: 777 k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: <b>I = 40 <math>\mu</math>A</b>							

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

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

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

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

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

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

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

Date:     /    /      
yy mm dd

Initials:     

Use a separate sheet for each configuration.

**Configuration Name:**  
 $Q^2 = 0.425$   $W = 2.20$   
 left-2

**Purpose:**

- Production  
 Test  
 Optics  
 Other:

**E<sub>beam</sub>:** 4.547 GeV    **I<sub>beam</sub>:** 40  $\mu$ A

**Raster:**  On  Off  
**Size:** 2mm x 2mm

**HMS**  
**p:**  $+/-$  2.2260  **$\theta$ (TV):** 11.745  
From GUI                      Nearest 0.005

**Beam position and angle on target:**

3H07A	X	Y
<u>-0.003</u>	mm	<u>0.199</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.817</u>	mm	<u>0.491</u> mm
Nomin:		Nomin:

**SHMS**  
**p:**  $+/-$  2.3260  **$\theta$ (TV):** 14.080  
From GUI                      Nearest 0.005

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

	HMS		SHMS	
Q1	I-SET (from PSU) <u>289.9505</u> A		I-SET (from PSU) <u>769.2990</u> A	HB
	B-HALL <u>0.285</u> kG		B-HALL <u>-4.859</u> kG	
Q2	I-SET (from PSU) <u>230.4816</u> A		I-SET (from PSU) <u>488.7900</u> A	Q1
	B-HALL <u>-0.427</u> kG		B-HALL <u>3.482</u> kG	
Q3	I-SET (from PSU) <u>112.3045</u> A		I-SET (from PSU) <u>820.3370</u> A	Q2
	B-HALL <u>+0.223</u> kG		B-HALL <u>-7.775</u> kG	
D	I-READ <u>681.2410</u> A		I-SET (from PSU) <u>539.7740</u> A	Q3
	B-NMR <u>0.60940</u> T		B-HALL <u>-5.309</u> kG	
	If momentum increased:		I-SET (from PSU) <u>742.1340</u> A	D
	<input type="checkbox"/> HMS cycled?		B-NMR <u>5.425</u> kG	
	<input type="checkbox"/> SHMS cycled?			

**Run Number:** 8768

LH2 10cm    PS1: 13    **Start time (from RC):** 08:03     Settings Verified?    **HMS prescale** 40 k    **SHMS prescale** 18 k    **COIN pretrig:** 695 k

LD2 10cm    PS2: 12    **Stop time (from RC):** 08:18     HV OK?    **e- $\pi$ n evts:** 2720     **$\Sigma$  e- $\pi$ n evts:** 2720     Data ok

MT thick 10cm    PS3: 1     50k OK?     Junk

C 1.5% r.l.    PS4: 1

C 0.5% r.l.    PS5: 0

        PS6: 1

**Comments:**

$I = 40 \mu$ A

**Run Number:** 8769

LH2 10cm    PS1: 13    **Start time (from RC):** 08:25     Settings Verified?    **HMS prescale** 51 k    **SHMS prescale** 33 k    **COIN pretrig:** 1980 k

LD2 10cm    PS2: 12    **Stop time (from RC):** 08:37     HV OK?    **e- $\pi$ n evts:** 23423     **$\Sigma$  e- $\pi$ n evts:** 26143     Data ok

MT thick 10cm    PS3: 1     50k OK?     Junk

C 1.5% r.l.    PS4: 1

C 0.5% r.l.    PS5: 0

        PS6: 1

**Comments:**

$I = 25 \mu$ A -  $28 \mu$ A

**Run Number:** 8770

LH2 10cm    PS1: 13    **Start time (from RC):** 08:38     Settings Verified?    **HMS prescale** 172 k    **SHMS prescale** 112 k    **COIN pretrig:** 7122 k

LD2 10cm    PS2: 12    **Stop time (from RC):** 09:12     HV OK?    **e- $\pi$ n evts:** 52086     **$\Sigma$  e- $\pi$ n evts:** 101654     Data ok

MT thick 10cm    PS3: 1     50k OK?     Junk

C 1.5% r.l.    PS4: 1

C 0.5% r.l.    PS5: 0

        PS6: 1

**Comments:**

75511

**Run Number:** 8771

LH2 10cm    PS1: 13    **Start time (from RC):** 09:13     Settings Verified?    **HMS prescale** 125 k    **SHMS prescale** 81 k    **COIN pretrig:** 5332 k

LD2 10cm    PS2: 12    **Stop time (from RC):** 09:38     HV OK?    **e- $\pi$ n evts:** 52086     **$\Sigma$  e- $\pi$ n evts:** 153740     Data ok

MT thick 10cm    PS3: 1     50k OK?     Junk

C 1.5% r.l.    PS4: 1

C 0.5% r.l.    PS5: 0

        PS6: 1

**Comments:**

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

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

Date: \_\_\_/\_\_\_/\_\_\_  
yy mm dd

Initials: \_\_\_\_\_

## Continuation of Configuration:

$Q^2 = 0.425$ ,  $W = 2.20$

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

Run Number: <b>8772</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <b>09:38</b> Stop time (from RC): <b>10:02</b>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <b>125</b> k SHMS prescale: <b>81</b> k e- $\pi$ n evts: <b>52512</b> $\Sigma$ e- $\pi$ n evts: <b>206252</b>	COIN pretrig: <b>5349</b> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:						

Run Number: <b>8773</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <b>10:03</b> Stop time (from RC): <b>10:27</b>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <b>81</b> k SHMS prescale: <b>125</b> k e- $\pi$ n evts: <b>52144</b> $\Sigma$ e- $\pi$ n evts: <b>258451</b>	COIN pretrig: <b>5362</b> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:						

Run Number: <b>8774</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u> PS2: <u>-1</u> PS3: <u>12</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <b>10:28</b> Stop time (from RC): <b>10:47</b>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale: <b>97</b> k SHMS prescale: <b>63</b> k e- $\pi$ n evts: <b>41476</b> $\Sigma$ e- $\pi$ n evts: <b>299927</b>	COIN pretrig: <b>4142</b> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:						

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

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

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale: _____ k SHMS prescale: _____ k e- $\pi$ n evts: _____ $\Sigma$ e- $\pi$ n evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <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: 19.07.19  
yy mm dd

Initials: JZ

Use a separate sheet for each configuration.

HMS

SHMS

**Configuration Name:** \_\_\_\_\_  
Calibration runs.

**Purpose:**

- Production
- Test
- Optics
- Other: \_\_\_\_\_

$E_{\text{beam}}$ : 4.547 GeV     $I_{\text{beam}}$ : 70  $\mu\text{A}$

Raster:  On  Off  
Size: 2x2

**HMS**  
 $p$ : +02.553  $\theta(\text{TV})$ : 33.040  
From GUI    Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
<u>0.032</u>	mm	<u>0.197</u> mm
Nomin:		Nomin:
3H07C	X	Y
<u>-0.787</u>	mm	<u>0.506</u> mm
Nomin:		Nomin:

**SHMS**  
 $p$ : -2.792  $\theta(\text{TV})$ : 29.900  
From GUI    Nearest 0.005

Collimator:    HMS: Large  Sieve     SHMS: Large  Sieve

Q1	I-SET (from PSU) <u>332.5640</u> A B-HALL	I-SET (from PSU) <u>890.8170</u> A B-HALL	HB
	<u>0.325</u> kG	<u>-5.866</u> kG	
Q2	I-SET (from PSU) <u>264.3793</u> A B-HALL	I-SET (from PSU) <u>586.2350</u> A B-HALL	Q1
	<u>-0.496</u> kG	<u>4.171</u> kG	
Q3	I-SET (from PSU) <u>128.7398</u> A B-HALL	I-SET (from PSU) <u>984.6870</u> A B-HALL	Q2
	<u>0.235</u> kG	<u>-9.326</u> kG	
D	I-READ <u>781.1400</u> A B-NMR	I-SET (from PSU) <u>647.9150</u> A B-HALL	Q3
	<u>0.69887</u> T	<u>-6.303</u> kG	
	If momentum increased:		D
	<input type="checkbox"/> HMS cycled?	I-SET (from PSU) <u>890.8170</u> A B-NMR	
	<input type="checkbox"/> SHMS cycled?	<u>6.488</u> kG	

Run Number: <u>8775</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: <u>4</u> PS2: <u>-1</u> PS3: <u>2</u> PS4: <u>-3</u> PS5: <u>-2</u> PS6: <u>-1</u>	Start time (from RC): <u>11:38</u> Stop time (from RC): <u>11:38</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <input checked="" type="checkbox"/> Junk
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Junk

Run Number: <u>8776</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: <u>4</u> PS2: <u>-1</u> PS3: <u>2</u> PS4: <u>-3</u> PS5: <u>-2</u> PS6: <u>-1</u>	Start time (from RC): <u>11:39</u> Stop time (from RC): <u>12:02</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale <u>118</u> k pretrig: _____ k $e-\pi n$ evts: <u>43544</u>	SHMS prescale <u>380</u> k pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: <u>87</u> k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Keep check (e,e'p)

Run Number: <u>8777</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: <u>4</u> PS2: <u>-1</u> PS3: <u>2</u> PS4: <u>-3</u> PS5: <u>-2</u> PS6: <u>-1</u>	Start time (from RC): <u>12:03</u> Stop time (from RC): <u>12:24</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale <u>126</u> k pretrig: _____ k $e-\pi n$ evts: <u>416473</u>	SHMS prescale <u>613</u> k pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: <u>85</u> k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Run Number: <u>8778</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/>	PS1: <u>4</u> PS2: <u>-1</u> PS3: <u>2</u> PS4: <u>-3</u> PS5: <u>-2</u> PS6: <u>-1</u>	Start time (from RC): <u>12:25</u> Stop time (from RC): <u>12:46</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale <u>115</u> k pretrig: _____ k $e-\pi n$ evts: <u>42583</u>	SHMS prescale <u>538</u> k pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: <u>78</u> k <input type="checkbox"/> Data ok <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: \_\_\_/\_\_\_/\_\_\_  
yy mm dd

Initials: \_\_\_\_\_

## Continuation of Configuration:

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

Run Number: <b>8779</b>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>4</u> PS2: <u>1</u> PS3: <u>2</u> PS4: <u>1</u> PS5: <u>2</u> PS6: <u>1</u>	Start time (from RC): <u>12:54</u> Stop time (from RC): <u>13:07</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: k e- $\pi$ n evts:	SHMS prescale pretrig: k $\Sigma$ e- $\pi$ n evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:  $I_{beam} = 40 \mu A$  Keep check

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

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

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

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

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

Initials: \_\_\_\_\_

## Continuation of Configuration:

$Q^2 = 2.12$ ,  $W = 2.05$ ,  $\theta_{shms} = 61.14$   
 $x = 0.39$ , low  $z$ ,  $\theta_{shms} = 15.14$

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

Run Number: <b>8797</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>4</u> PS6: <u>-1</u>	Start time (from RC): <u>22:16</u> Stop time (from RC): <u>22:47</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>169</u> k $e-\pi n$ evts: <u>4592</u>	SHMS prescale pretrig: <u>176</u> k $\Sigma e-\pi n$ evts: <u>22026</u>	COIN pretrig: <u>243</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: <b>based on Run # 8784</b>							

Run Number: <b>8798</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>7</u> PS3: <u>7</u> PS4: <u>0</u> PS5: <u>-1</u> PS6: <u>-1</u>	Start time (from RC): <u>22:49</u> Stop time (from RC): <u>23:43</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>263</u> k $e-\pi n$ evts: <u>7084</u>	SHMS prescale pretrig: <u>274</u> k $\Sigma e-\pi n$ evts: <u>29110</u>	COIN pretrig: <u>383</u> k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

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

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

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

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

Initials: \_\_\_\_\_

## Continuation of Configuration:

$Q^2 = 2.12, W = 2.05$

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

Run Number: <b>8784</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>15:38</u> Stop time (from RC): <u>16:14</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>169</u> k $e-\pi n$ evts: <u>4627</u>	SHMS prescale pretrig: <u>176</u> k $\Sigma e-\pi n$ evts:	COIN pretrig: <u>243</u> k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: <u>70uA current</u> <span style="float: right;"><u>17,526</u> ↑</span>							

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

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

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

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

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): Stop time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts:	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts:	COIN pretrig: _____ k <input type="checkbox"/> Data ok <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: 19/07/20  
yy mm dd

Initials: MM

## Continuation of Configuration:

$P = 2.12, |X| = 2.05, x = 0.39$   
 $\text{low } \epsilon, \text{SHMS-}\theta = 15.14$

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

Run Number: <u>8805</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>3:38</u> Stop time (from RC): <u>4:11</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>195</u> k $e-\pi n$ evts: <u>5363</u>	SHMS prescale pretrig: <u>204</u> k $\Sigma e-\pi n$ evts: <u>34473</u>	COIN pretrig: <u>282</u> k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <u>8808</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): <u>5:30</u> Stop time (from RC): <u>5:58</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>168</u> k $e-\pi n$ evts: <u>4681</u>	SHMS prescale pretrig: <u>176</u> k $\Sigma e-\pi n$ evts: _____	COIN pretrig: <u>242</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: <u>SHMS-<math>\theta = 15.14</math></u>							

Run Number: <u>8809</u>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): <u>5:58</u> Stop time (from RC): <u>6:21</u>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>135</u> k $e-\pi n$ evts: <u><del>3644</del></u>	SHMS prescale pretrig: <u>141</u> k $\Sigma e-\pi n$ evts: _____	COIN pretrig: <u>194</u> k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments: <u>3644</u>							

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

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

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <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: 19/07/19  
yy mm dd

Initials: \_\_\_\_\_

Use a separate sheet for each configuration.

**Configuration Name:** \_\_\_\_\_  
 $Q^2 = 2.12$      $W = 2.05$   
 $x = 0.39$     low E

$E_{\text{beam}} = 4.547 \text{ GeV}$      $I_{\text{beam}} = 70 \text{ } \mu\text{A}$

**HMS**  
 $p = \pm 7.6620$      $\theta(\text{TV}) = 30.64$   
From GUI    Nearest 0.005

**SHMS**  
 $p = \pm 2.7920$      $\theta(\text{TV}) = 17.130$   
From GUI    Nearest 0.005

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

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

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

Beam position and angle on target:

3H07A	X	0.2	Y
-0.025	mm		mm
Nomin:			
3H07C	X	0.512	Y
-0.77	mm		mm
Nomin:			

	HMS	SHMS	
Q1	I-SET (from PSU) <u>216.98</u> A B-HALL	I-SET (from PSU) <u>924.1</u> A B-HALL	HB
	<u>0.212</u> KG	<u>-5.866</u> KG	
Q2	I-SET (from PSU) <u>171.75</u> A B-HALL	I-SET (from PSU) <u>586.08</u> A B-HALL	Q1
	<u>-0.309</u> KG	<u>4.171</u> KG	
Q3	I-SET (from PSU) <u>83.46</u> A B-HALL	I-SET (from PSU) <u>985.04</u> A B-HALL	Q2
	<u>0.167</u> KG	<u>-9.324</u> KG	
D	I-READ <u>507.25</u> A B-NMR	I-SET (from PSU) <u>647.96</u> A B-HALL	Q3
	<u>0.45506</u> T	<u>-6.301</u> KG	
	If momentum increased: <input type="checkbox"/> HMS cycled? <input type="checkbox"/> SHMS cycled?	I-SET (from PSU) <u>890.89</u> A B-NMR	D
		<u>6.488</u> KG	

<b>Run Number:</b> <u>8785</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>16:25</u> Stop time (from RC): <u>16:45</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>116</u> k $e-\pi n$ evts: <u>2934</u>	SHMS prescale pretrig: <u>76</u> k $\Sigma e-\pi n$ evts: <u>2934</u>	COIN pretrig: <u>117</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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<b>Run Number:</b> <u>8786</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>16:48</u> Stop time (from RC): <u>17:22</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>201</u> k $e-\pi n$ evts: <u>5016</u>	SHMS prescale pretrig: <u>131</u> k $\Sigma e-\pi n$ evts: <u>7950</u>	COIN pretrig: <u>202</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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<b>Run Number:</b> <u>8787</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>17:22</u> Stop time (from RC): <u>18:01</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>227</u> k $e-\pi n$ evts: <u>5579</u>	SHMS prescale pretrig: <u>148</u> k $\Sigma e-\pi n$ evts: <u>13.529</u>	COIN pretrig: <u>228</u> k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
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<b>Run Number:</b> <u>8788</u>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>18:02</u> Stop time (from RC): <u>18:30</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>167</u> k $e-\pi n$ evts: <u>4077</u>	SHMS prescale pretrig: <u>109</u> k $\Sigma e-\pi n$ evts: <u>17606</u>	COIN pretrig: <u>168</u> k <input checked="" type="checkbox"/> Data ok <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: \_\_\_/\_\_\_/\_\_\_  
yy mm dd

Initials: \_\_\_\_\_

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

## Continuation of Configuration:

$R^2 = 2.12$   $W = 2.05$   
 $z = 0.39$  low  $z$ , SHMS  $\theta = 17.135 / 17.14$

Run Number: <b>8789</b>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input checked="" type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>9</u> PS2: <u>-1</u> PS3: <u>5</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <b>18:40</b> Stop time (from RC): <b>19:58</b>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <b>67</b> k $e-\pi n$ evts: <b>56</b>	SHMS prescale pretrig: <b>68</b> k $\Sigma e-\pi n$ evts: <b>17662</b>	COIN pretrig: <b>13</b> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments: **10cm dummy run**

Run Number: <b>8799</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <b>23:53</b> Stop time (from RC): <b>00:30</b>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <b>216</b> k $e-\pi n$ evts: <b>5480</b>	SHMS prescale pretrig: <b>141</b> k $\Sigma e-\pi n$ evts: <b>23142</b>	COIN pretrig: <b>218</b> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments: **Shms GM 17.135 deg**

Run Number: <b>8800</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <b>00:31</b> Stop time (from RC): <b>1:02</b>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <b>162</b> k $e-\pi n$ evts: <b>3959</b>	SHMS prescale pretrig: <b>106</b> k $\Sigma e-\pi n$ evts: <b>27101</b>	COIN pretrig: <b>165</b> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:

Run Number: <b>8801</b>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <b>1:03</b> Stop time (from RC): <b>1:31</b>	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <b>78</b> k $e-\pi n$ evts: <b>1978</b>	SHMS prescale pretrig: <b>51</b> k $\Sigma e-\pi n$ evts: <b>29079</b>	COIN pretrig: <b>87</b> k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments: **Beam was off for approx. 5 minutes.**

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

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Start time (from RC): _____ Stop time (from RC): _____	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k $e-\pi n$ evts: _____	SHMS prescale pretrig: _____ k $\Sigma e-\pi n$ evts: _____	COIN pretrig: _____ k <input type="checkbox"/> Data ok <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: 19 / 7 / 20  
yy mm dd

Initials: MM

## Continuation of Configuration:

$Q^2 = 2.2$ ,  $x = 2.05$ ,  $x = 0.39$   
low E,  $shms-\theta = 17.133$

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

Run Number: 8806	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 12 PS2: -1 PS3: 7 PS4: 0 PS5: 0 PS6: -1	Start time (from RC): 4:15 Stop time (from RC): 4:47	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 188 k $e-\pi n$ evts: 4752	SHMS prescale pretrig: 123 k $\Sigma e-\pi n$ evts: 33831	COIN pretrig: 191 k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:

Run Number: 8810	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 12 PS2: -1 PS3: 7 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 6:29 Stop time (from RC): 6:40	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: k $e-\pi n$ evts:	SHMS prescale pretrig: k $\Sigma e-\pi n$ evts:	COIN pretrig: k <input type="checkbox"/> Data ok <input checked="" type="checkbox"/> Junk
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Comments:  
 $shms-\theta = 17.135$  JUNK

Run Number: 8811	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 12 PS2: -1 PS3: 7 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 6:31 Stop time (from RC): 6:40	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 48 k $e-\pi n$ evts: 1174	SHMS prescale pretrig: 32 k $\Sigma e-\pi n$ evts: 35005	COIN pretrig: 46 k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:  
 $shms-\theta = 17.135$

Run Number: 8812	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 12 PS2: -1 PS3: 7 PS4: -1 PS5: 0 PS6: -1	Start time (from RC): 6:52 Stop time (from RC): 7:17	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 153 k $e-\pi n$ evts: 3841	SHMS prescale pretrig: 101 k $\Sigma e-\pi n$ evts: 38846	COIN pretrig: 156 k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments:  
 $shms-\theta = 17.135$  MM

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

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

Initials:    

Use a separate sheet for each configuration.

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

$Q^2 = 2.12, W = 2.05$

$x = 0.39$  low  $\xi$

Purpose:

- Production  
 Test  
 Optics  
 Other: \_\_\_\_\_

$E_{\text{beam}} = 4.547$  GeV

$I_{\text{beam}} = 70$   $\mu\text{A}$

Raster:  On  Off

Size:  $2 \times 2$

HMS

SHMS

Q1	I-SET (from PSU) 216.98 A B-HALL 0.212 kg	I-SET (from PSU) 924.20 A B-HALL -5.866 kg	HB
Q2	I-SET (from PSU) 171.71 A B-HALL -0.308 kg	I-SET (from PSU) 586.16 A B-HALL 4.172 kg	Q1
Q3	I-SET (from PSU) 83.44 A B-HALL 0.165 kg	I-SET (from PSU) 985.04 A B-HALL -9.326 kg	Q2
D	I-READ 507.84 A B-NMR 0.45506 T	I-SET (from PSU) 647.96 A B-HALL -6.304 kg	Q3
	If momentum increased: <input type="checkbox"/> HMS cycled? <input type="checkbox"/> SHMS cycled?	I-SET (from PSU) 890.88 A B-NMR 6.488 kg	D

HMS

$p = \pm 1.6620$   $\theta(\text{TV}) = 30.64$   
From GUI Nearest 0.005

Beam position and angle on target:

3H07A	X	Y
	-0.020 mm	0.227 mm
Nomin:		Nomin:
3H07C	X	Y
	-0.812 mm	0.509 mm
Nomin:		Nomin:

SHMS

$p = \pm 2.7920$   $\theta(\text{TV}) = 13.140$   
From GUI Nearest 0.005

Collimator:

HMS: Large   
Sieve

SHMS: Large   
Sieve

Run Number:

8790

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: \_\_\_\_\_  
 PS2: \_\_\_\_\_  
 PS3: \_\_\_\_\_  
 PS4: \_\_\_\_\_  
 PS5: \_\_\_\_\_  
 PS6: \_\_\_\_\_

Start time (from RC):

Stop time (from RC):

- 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:

junk run

Run Number:

8791

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 10  
 PS2: 7  
 PS3: 5  
 PS4: 1  
 PS5: 0  
 PS6: 1

Start time (from RC):

Stop time (from RC):

- Settings Verified?  
 HV OK?  
 50k OK?

HMS prescale pretrig: 91 k

$e-\pi n$  evts: 86

SHMS prescale pretrig: 106 k

$\Sigma e-\pi n$  evts:

COIN pretrig: 21 k

Data ok

Junk

Comments:

10cm dummy run

Run Number:

8792

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
 PS2: -1  
 PS3: 7  
 PS4: 1  
 PS5: 0  
 PS6: 1

Start time (from RC):

Stop time (from RC):

- Settings Verified?  
 HV OK?  
 50k OK?

HMS prescale pretrig: 113 k

$e-\pi n$  evts: 2851

SHMS prescale pretrig: 91 k

$\Sigma e-\pi n$  evts: 2851

COIN pretrig: 227 k

Data ok

Junk

Comments:

Run Number:

8793

- LH2 10cm  
 LD2 10cm  
 MT thick 10cm  
 C 1.5% r.l.  
 C 0.5% r.l.  
 \_\_\_\_\_

PS1: 13  
 PS2: -1  
 PS3: 7  
 PS4: -1  
 PS5: 0  
 PS6: -1

Start time (from RC):

Stop time (from RC):

- Settings Verified?  
 HV OK?  
 50k OK?

HMS prescale pretrig: 123 k

$e-\pi n$  evts: 3085

SHMS prescale pretrig: 99 k

$\Sigma e-\pi n$  evts: 5936

COIN pretrig: 257 k

Data ok

Junk

Comments:

beam was down about 15min

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

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

Date: \_\_\_/\_\_\_/\_\_\_  
yy mm dd

Initials: \_\_\_\_\_

## Continuation of Configuration:

$Q^2 = 2.12$ ,  $W = 2.05$   
 $x = 0.39$ , low  $z$

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

Run Number: <b>8794</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u>	Start time (from RC): <u>20:42</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>157</u> k	SHMS prescale pretrig: <u>127</u> k	COIN pretrig: <u>321</u> k
		PS2: <u>7</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Stop time (from RC): <u>21:17</u>		$e-\pi n$ evts: <u>3902</u>	$\Sigma e-\pi n$ evts: <u>9838</u>	<input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <b>8795</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u>	Start time (from RC): <u>21:18</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>166</u> k	SHMS prescale pretrig: <u>135</u> k	COIN pretrig: <u>339</u> k
		PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>7</u> PS5: <u>4</u> PS6: <u>7</u>	Stop time (from RC): <u>21:48</u>		$e-\pi n$ evts: <u>4201</u>	$\Sigma e-\pi n$ evts: <u>14039</u>	<input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <b>8796</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>13</u>	Start time (from RC): <u>21:49</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>51</u> k	SHMS prescale pretrig: <u>41</u> k	COIN pretrig: <u>109</u> k
		PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Stop time (from RC): <u>22:08</u>		$e-\pi n$ evts: <u>1292</u>	$\Sigma e-\pi n$ evts: <u>15331</u>	<input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

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

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

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: _____	Start time (from RC):	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: _____ k	SHMS prescale pretrig: _____ k	COIN pretrig: _____ k
		PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____	Stop time (from RC):		$e-\pi n$ evts:	$\Sigma e-\pi n$ evts:	<input type="checkbox"/> Data ok <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: 19 / 7 / 20  
yy mm dd

Initials: MM

## Continuation of Configuration:

$Q^2 = 2.12$   $|x| = 2.02$   
 $x = 0.39$  low E SHMS = 13.140

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

Run Number: 8802	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 12 PS2: -1 PS3: 7 PS4: -7 PS5: -0 PS6: -1	Start time (from RC): 1:45 Stop time (from RC): 2:29	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 168 k $e-\pi n$ evts: 4194	SHMS prescale pretrig: 274 k $\Sigma e-\pi n$ evts: 19525	COIN pretrig: 342 k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: 8803	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 12 PS2: -1 PS3: 7 PS4: -7 PS5: -0 PS6: -1	Start time (from RC): 2:19 Stop time (from RC): 2:51	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 179 k $e-\pi n$ evts: 4319	SHMS prescale pretrig: 292 k $\Sigma e-\pi n$ evts: 23844	COIN pretrig: 364 k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: 8804	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: 12 PS2: -1 PS3: 7 PS4: -7 PS5: -0 PS6: -1	Start time (from RC): 2:51 Stop time (from RC): 3:34	<input type="checkbox"/> Settings Verified? <input type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: 255 k $e-\pi n$ evts: 6346	SHMS prescale pretrig: 417 k $\Sigma e-\pi n$ evts: 30189	COIN pretrig: 522 k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

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

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

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

Initials:     

## Continuation of Configuration:

$Q^2 = 2.12$ ,  $W = 2.025$ ,  
 $X = 0.39$  *large*,  $SHMS-\theta = 13.135$

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

Run Number: <b>8807</b>	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>4:53</u> Stop time (from RC): <u>5:26</u>	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>200</u> k $e-\pi n$ evts: <u>5015</u>	SHMS prescale pretrig: <u>327</u> k $\Sigma e-\pi n$ evts: <u>85204</u>	COIN pretrig: <u>411</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

Run Number: <b>8813</b>	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> MT thick 10cm <input type="checkbox"/> C 1.5% r.l. <input type="checkbox"/> C 0.5% r.l.	PS1: <u>12</u> PS2: <u>-1</u> PS3: <u>7</u> PS4: <u>-1</u> PS5: <u>0</u> PS6: <u>-1</u>	Start time (from RC): <u>7:22</u> Stop time (from RC): <u>8:07</u>	<input type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input type="checkbox"/> 50k OK?	HMS prescale pretrig: <u>217</u> k $e-\pi n$ evts: <u>5531</u>	SHMS prescale pretrig: <u>356</u> k $\Sigma e-\pi n$ evts: <u>40735</u>	COIN pretrig: <u>451</u> k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
Comments:							

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

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

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

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