

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

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

Date: 22.10.12
yy mm dd

Initials: NH

Use a separate sheet for each configuration.

Configuration Name: _____

~~6374~~ Heap setting #4
3 pass

E_{beam} : 6.394 GeV

I_{beam} : _____ μA

Purpose:

- Production
 Test (e.g. DAQ, Detector)
 Optics (SHMS / HMS)
 Other: _____

Raster: On Off

Size: 2x2

Beam position and angle on target:

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

HMS

p : +0.3514 $\theta(TV)$: 28.40
From GUI Nearest 0.005

SHMS

p : -3.706 $\theta(TV)$: 26.810
From GUI Nearest 0.005

Collimator:

HMS: Large
Sieve

SHMS: Collim
Sieve

	HMS	SHMS	
Q1	I-SET (from PSU) <u>4578</u> A B-HALL <u>0.607</u> T	I-SET (from PSU) <u>1230</u> A B-HALL <u>-7.79</u> KG	HB
Q2	I-SET (from PSU) <u>363.</u> A B-HALL <u>-0.69</u> T	I-SET (from PSU) <u>778</u> A B-HALL <u>5.56</u> KG	Q1
Q3	I-SET (from PSU) <u>176</u> A B-HALL <u>0.35</u> T	I-SET (from PSU) <u>1307</u> A B-HALL <u>-12.35</u> KG	Q2
D	I-READ <u>1077.37A</u> B-NMR <u>0.95</u> T	I-SET (from PSU) <u>860</u> A B-HALL <u>-8.37</u> KG	Q3
	If momentum increased: <input checked="" type="checkbox"/> HMS cycled? <input type="checkbox"/> SHMS cycled?	I-SET (from PSU) <u>1181</u> A B-NMR <u>8.58</u> KG	D

Run Number:

16509

- LH2 10cm
 LD2 10cm
 Dummy 10cm
 C 0.5% r.l.
 Optics _____cm
 _____cm

PS1: 6
PS2: \
PS3: 1
PS4: 0
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

3:26

Stop time (RC GUI):

3:27

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale 42 k
pretrig: _____

$e-\pi n$ evts:
5307

SHMS prescale 57 k
pretrig: _____

$\Sigma e-\pi n$ evts:
5307

COIN pretrig: 15 k

- Data ok
 Junk

Comments:

Not Junk

Q = 36.697

Run Number:

16510

- LH2 10cm
 LD2 10cm
 Dummy 10cm
 C 0.5% r.l.
 Optics _____cm
 _____cm

PS1: 6
PS2: \
PS3: 1
PS4: 0
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

3:38

Stop time (RC GUI):

4:10

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale 165 k
pretrig: _____

$e-\pi n$ evts:
21424

SHMS prescale 232 k
pretrig: _____

$\Sigma e-\pi n$ evts:
26731

COIN pretrig: 54 k

- Data ok
 Junk

Comments:

Q = 148.225
 $\Sigma Q = 184.922$ mC

Run Number:

16511

- LH2 10cm
 LD2 10cm
 Dummy 10cm
 C 0.5% r.l.
 Optics _____cm
 _____cm

PS1: 4
PS2: \
PS3: 1
PS4: 0
PS5: 0
PS6: -1
Mode10: cer / fadc

Start time (RC GUI):

4:17

Stop time (RC GUI):

4:31

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale 31 k
pretrig: _____

$e-\pi n$ evts:
105

SHMS prescale 75 k
pretrig: _____

$\Sigma e-\pi n$ evts:

COIN pretrig: 8 k

- Data ok
 Junk

Comments:

Q = 29.207

Run Number:

- LH2 10cm
 LD2 10cm
 Dummy 10cm
 C 0.5% r.l.
 Optics _____cm
 _____cm

PS1: _____
PS2: _____
PS3: _____
PS4: _____
PS5: _____
PS6: _____
Mode10: cer / fadc

Start time (RC GUI):

Stop time (RC GUI):

- Settings Verified?
 HV OK?
 50k OK?

HMS prescale _____ k
pretrig: _____

$e-\pi n$ evts: _____

SHMS prescale _____ k
pretrig: _____

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

COIN pretrig: _____ k

- Data ok
 Junk

Comments:

p(e,e' π)n Run Sheet

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

Date: 22/08/25
yy mm dd

Initials NH

Use a separate sheet for each configuration.

Configuration Name: 3-pass
Keep Coin #5

Purpose:
 Production
 Test (e.g. DAQ, Detector)
 Optics (SHMS / HMS)
 Other: _____

E_{beam}: 6.394 GeV **I_{beam}:** _____ μ A

Raster: On Off
Size: 2x2

HMS
p: +10 3.014 **θ (TV):** 33250
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: -4.220 **θ (TV):** 23115
From GUI Nearest 0.005

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

	HMS	SHMS	
Q1	I-SET (from PSU) <u>392.</u> A B-HALL	I-SET (from PSU) <u>1401</u> A B-HALL	HB
	<u>0.517</u> T	<u>-8.89</u> KG	
Q2	I-SET (from PSU) <u>312</u> A B-HALL	I-SET (from PSU) <u>886</u> A B-HALL	Q1
	<u>-0.590</u> T	<u>6.29</u> KG	
Q3	I-SET (from PSU) <u>151</u> A B-HALL	I-SET (from PSU) <u>1488</u> A B-HALL	Q2
	<u>0.302</u> T	<u>-14.06</u> KG	
D	I-READ <u>422.95</u> A B-NMR	I-SET (from PSU) <u>979</u> A B-HALL	Q3
	<u>0.825108</u> T	<u>-9.53</u> KG	
	If momentum increased: <input type="checkbox"/> HMS cycled? <input checked="" type="checkbox"/> SHMS cycled?	I-SET (from PSU) <u>1346</u> A B-NMR	D
		<u>9.80</u> KG	

Run Number: 16512

LH2 10cm LD2 10cm Dummy 10cm
 C 0.5% r.l. Optics _____ cm

PS1: 4 PS2: 1 PS3: 0 PS4: 0 PS5: 0 PS6: -1
Mode10: cer/fadc

Start time (RC GUI): 4:57 **Stop time (RC GUI):** 5:12

Settings Verified? HV OK? 50k OK?

HMS prescale 18 k SHMS prescale 89 k COIN pretrig: 9 k

$e-\pi n$ evts: 63 $\Sigma e-\pi n$ evts: _____

Data ok Junk

$Q = 30.186$

Run Number: 16513

LH2 10cm LD2 10cm Dummy 10cm
 C 0.5% r.l. Optics _____ cm

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

Start time (RC GUI): 5:31 **Stop time (RC GUI):** 5:45

Settings Verified? HV OK? 50k OK?

HMS prescale 25 k SHMS prescale 27 k COIN pretrig: 10 k

$e-\pi n$ evts: 1320 $\Sigma e-\pi n$ evts: 1320

Data ok Junk

starts @ 70 μ A goes to 75 μ A *ended w/ long beam ~7min down* $Q = 25.482$ $\Sigma Q = 11$

Run Number: 16514

LH2 10cm LD2 10cm Dummy 10cm
 C 0.5% r.l. Optics _____ cm

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

Start time (RC GUI): 5:59 **Stop time (RC GUI):** 6:14

Settings Verified? HV OK? 50k OK?

HMS prescale 35 k SHMS prescale 41 k COIN pretrig: 13 k

$e-\pi n$ evts: 2195 $\Sigma e-\pi n$ evts: 3515

Data ok Junk

75-50 μ A they were having troubles $Q = 39.375$ $\Sigma Q = 64.857$

Run Number: 16515

LH2 10cm LD2 10cm Dummy 10cm
 C 0.5% r.l. Optics _____ cm

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

Start time (RC GUI): 67:13 **Stop time (RC GUI):** 7:43

Settings Verified? HV OK? 50k OK?

HMS prescale 101 k SHMS prescale 134 k COIN pretrig: 29 k

$e-\pi n$ evts: 6843 $\Sigma e-\pi n$ evts: 10358

Data ok Junk

80 μ A $Q = 126.219$ $\Sigma Q = 191.076$

p(e,e' π)n Run Sheet

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

Date: 22/08/25
yy mm dd

Initials: *NH*

Continuation of Configuration:

3-pass Heep Coin #5

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

Run Number: 16516	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> Dummy 10cm <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> Optics ___ cm	PS1: <u>7</u> PS2: <u>7</u> PS3: <u>7</u> PS4: <u>0</u> PS5: <u>0</u> PS6: <u>0</u> Mode10: cer / fadc	Start time (RC GUI): 7:43 Stop time (RC GUI): 7:53	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 28 k $e-\pi n$ evts: 1908	SHMS prescale pretrig: 38 k $\Sigma e-\pi n$ evts: 12266	COIN pretrig: 9 k <input type="checkbox"/> Data ok <input type="checkbox"/> Junk
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$Q = 34.403$
 $\Sigma Q = 225.479 \text{ mC}$

Run Number: 16517	<input checked="" type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> Dummy 10cm <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> Optics ___ cm	PS1: <u>7</u> PS2: <u>7</u> PS3: <u>7</u> PS4: <u>0</u> PS5: <u>0</u> PS6: <u>0</u> Mode10: cer / fadc	Start time (RC GUI): 08:17:27 Stop time (RC GUI): 09:01	<input checked="" type="checkbox"/> Settings Verified? <input checked="" type="checkbox"/> HV OK? <input checked="" type="checkbox"/> 50k OK?	HMS prescale pretrig: 126 k $e-\pi n$ evts: 8271	SHMS prescale pretrig: 159 k $\Sigma e-\pi n$ evts: 20537	COIN pretrig: 40 k <input checked="" type="checkbox"/> Data ok <input type="checkbox"/> Junk
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Comments: Dave is still trying to fix the HV issue for SHMS PS 13 - channel. But he told me to keep the run ongoing. 30 μ A - 45 μ A. CojaRcEnd service failed while trying to stop the run. Had to reset.

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> Dummy 10cm <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> Optics ___ cm	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): Stop time (RC GUI):	<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: We have total 20,537 ep events which is slightly less than the desired value, 21,000. By the time we had the numbers we had already started moving the spectrometers so Dave said we should keep logging. Run # 16517 gave us the impression that 30 min run. $Q = 151.450$
 $\Sigma Q = 376.929$

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> Dummy 10cm <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> Optics ___ cm	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): Stop time (RC GUI):	<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: with 100% efficiency should give us ~10,000 ep events that is what we had in our mind while taking run 16517. But after analysis the corruption turned out to be ~lighty off.

Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> Dummy 10cm <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> Optics ___ cm	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): Stop time (RC GUI):	<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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Run Number:	<input type="checkbox"/> LH2 10cm <input type="checkbox"/> LD2 10cm <input type="checkbox"/> Dummy 10cm <input type="checkbox"/> C 0.5% r.l. <input type="checkbox"/> Optics ___ cm	PS1: _____ PS2: _____ PS3: _____ PS4: _____ PS5: _____ PS6: _____ Mode10: cer / fadc	Start time (RC GUI): Stop time (RC GUI):	<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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