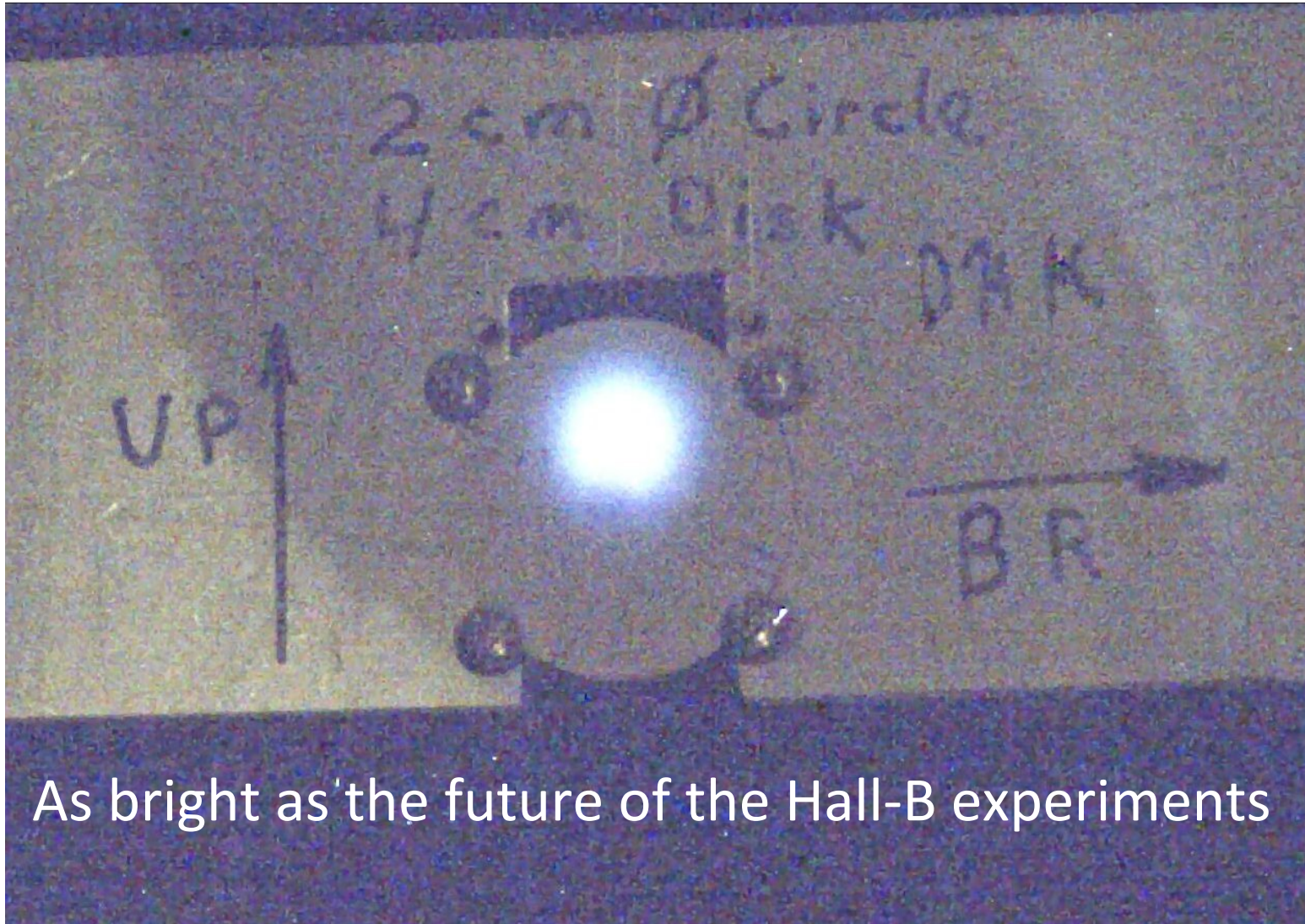


# Beam to Hall-B after 30 month!!



As bright as the future of the Hall-B experiments

# RC report, 11/7 – 11/10, 2014

- Hall lockup at 4pm on 11/07/2014
- No beam ~24 hours, commissioning of RF separators went well
- First beam on Hall-B tagger dump viewer has been seen at 18:29 on 11/08/2014, with large spread. MCC started tune 1 pass beam to Hall-B
- On 11/09, at 1:30am brief glimpse of beam on the tagger viewer, then various hardware issues prevented beam delivery to hall till next day, afternoon
- 11/09, Beam spot on tagger viewer at 2pm, very large spot, still in tuned mode

Finally, at ~9pm on Sunday, November 9, 21014, CW beam was delivered to Hall-B tagger dump

- After some beam tuning, till ~11:30pm, started beam commissioning program outlined in the commissioning document. Due to beam stability only part of the commissioning plan was done
- At 6am MCC took Hall-B back to restricted access
- **Hall will stay in restricted access till Friday swing**

# Scaler GUI

Still in development

The GUI displays a beamline layout with various components and their associated data. The layout includes a Tagger Dump, Torus, Collimator, and Frascati Magnets. Data is presented in color-coded boxes: cyan for rates, blue for monitor readings, and white for magnet settings.

**RATES**

- Beam PMTs: 0
- ECal rates: 1
- RF Rate (Hz): 0
- Duty Cycle (%): 32,2002
- Max RMS (%): 145,1058

**Beam Position Monitors**

	2C21A	2C24A	2H01	Faraday Cup
X Abs Pos (mm)	0,231	0,284	0,000	0,000
Y Abs Pos (mm)	-1,582	1,326	0,000	0,000
Current (nA)	9,518	9,104	0,000	

**Magnet Settings**

Tagger	Frascati Magnet 1	Frascati Magnet 2
2C21H: 31	48,840 A	
2C21V: 2751		
2C22H: 341		
2C23V: -8		
Tagger Dump Temperature: -3,44		

**Collimator Settings**

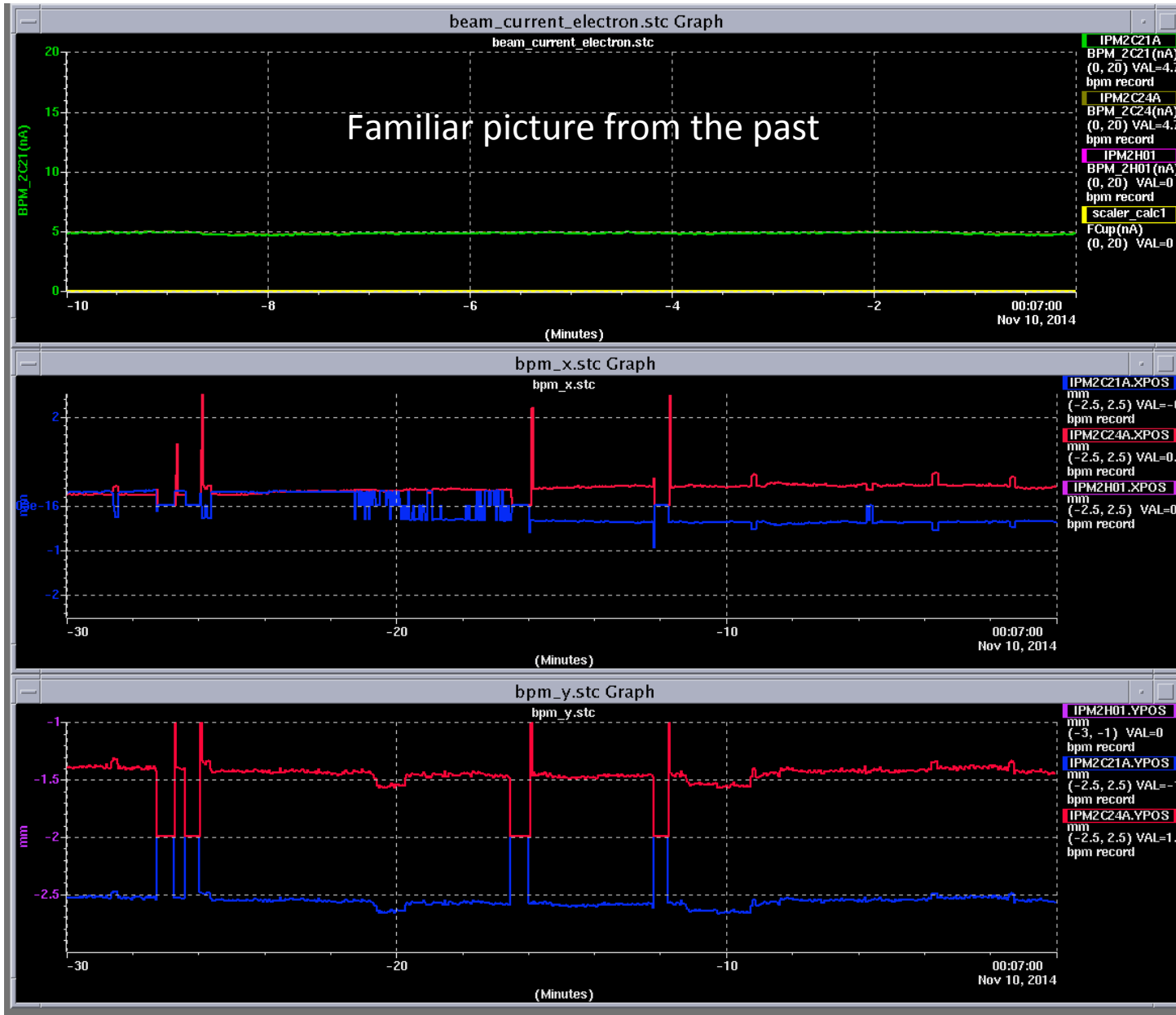
- OUT: 12,7 mm, 8,6 mm, 6,4 mm
- Pair Spec: Main Power On, Positive Polarity

**Window Edit**

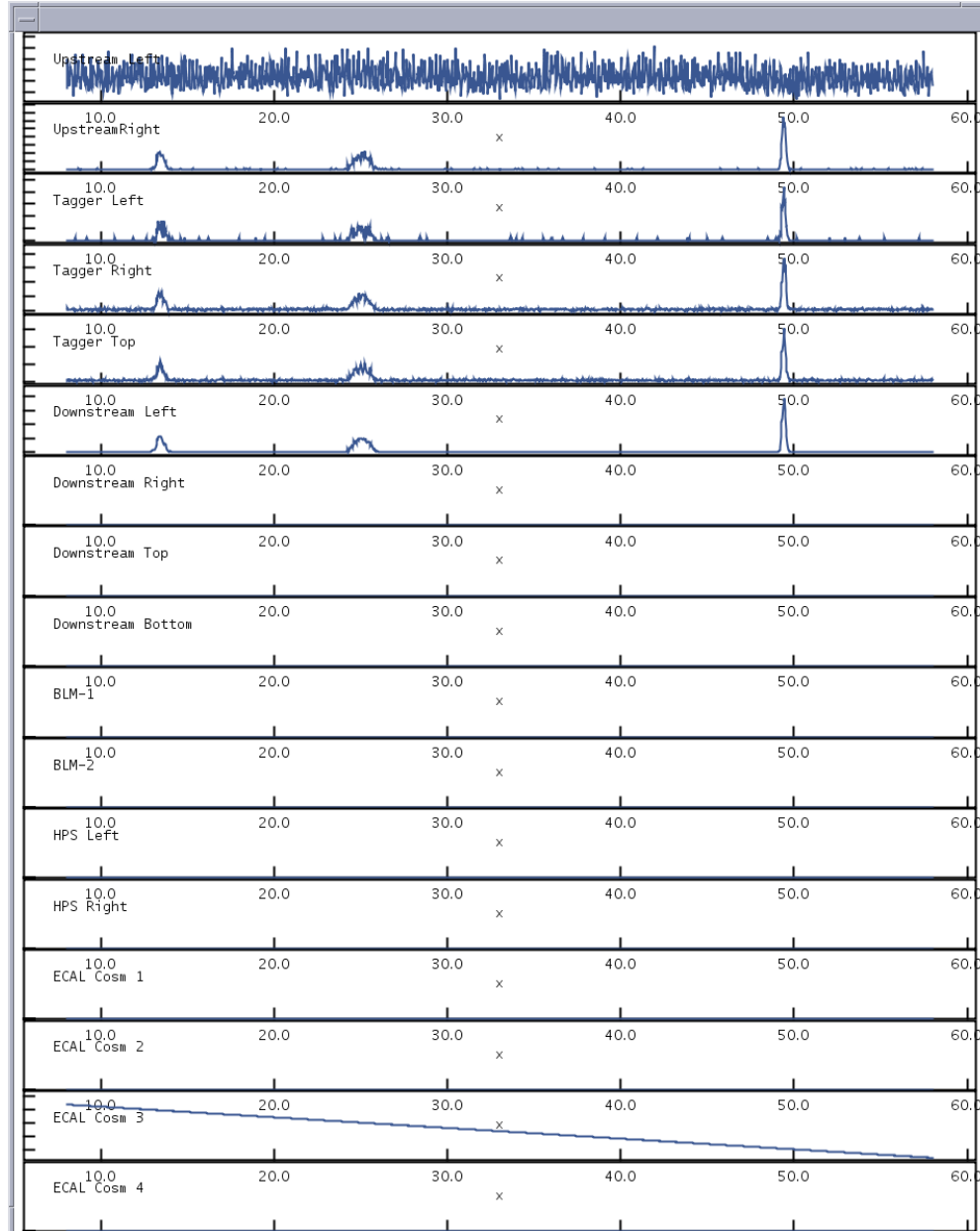
```
Suspended
hpsrun@clonio
[1] medm -
_hps.ad1 &
hpsrun@clonio
```

To make a log entry right click:  
Menu Execute -> Make Log Entry

# Beam strip tools



# New harp analyzer, still in development stage



Analyzer viewer

Thanks to:

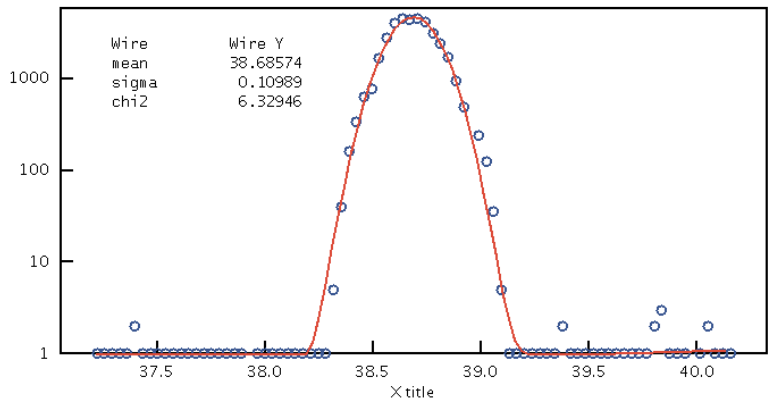
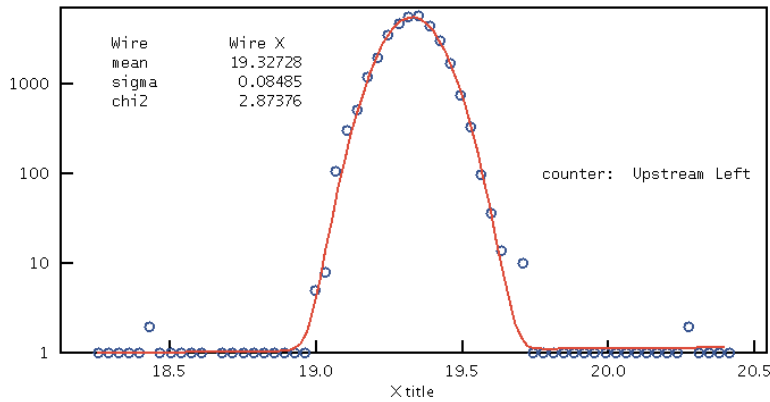
Annie Simonyan

Gagig Gavalian

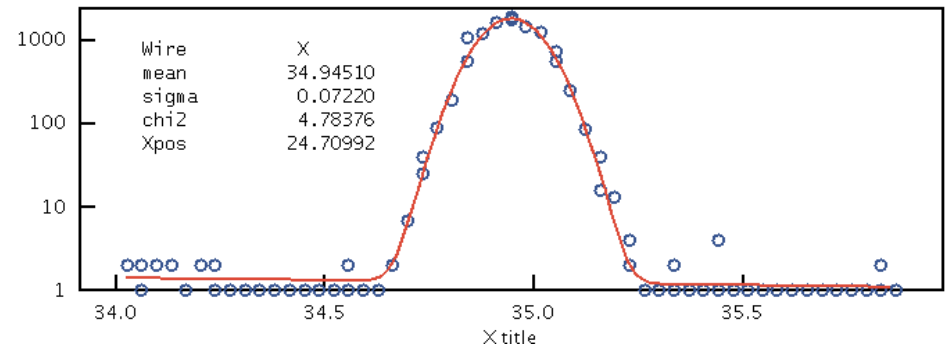
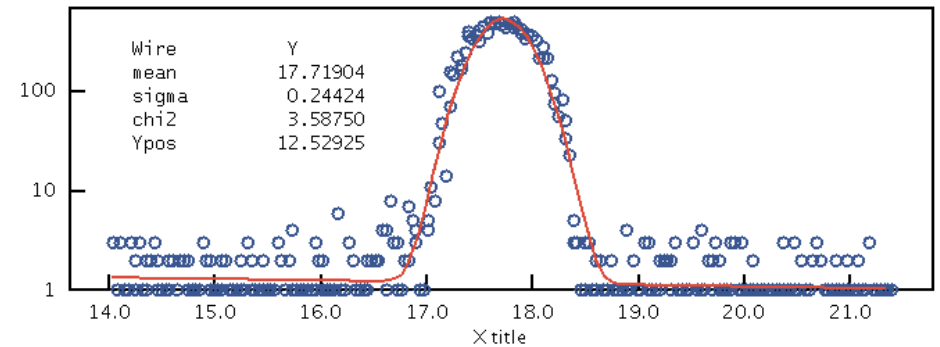
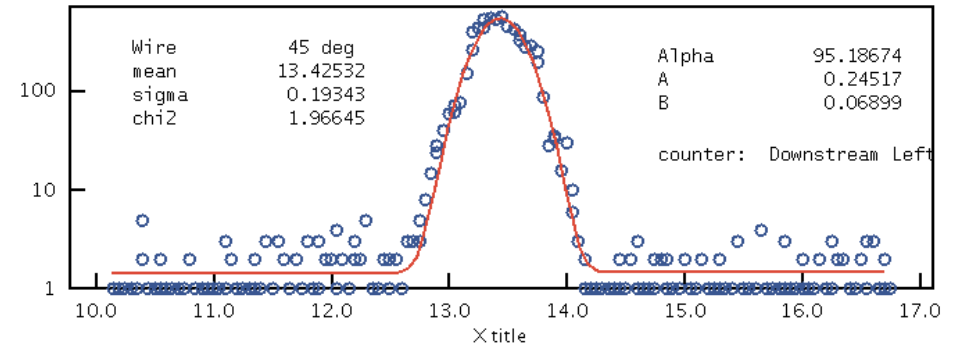
Rafael Paremuzyan

# Harp Scans

## 2C21 Harp

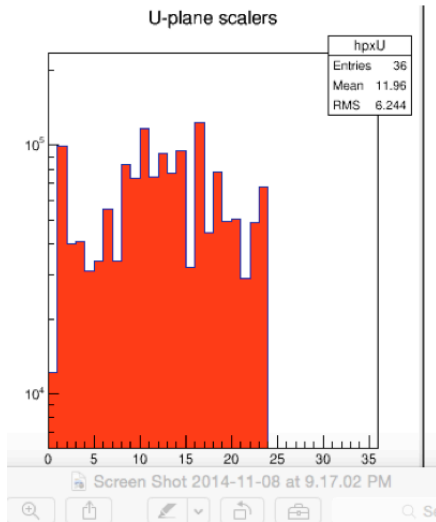


## 2C24 (tagger) Harp

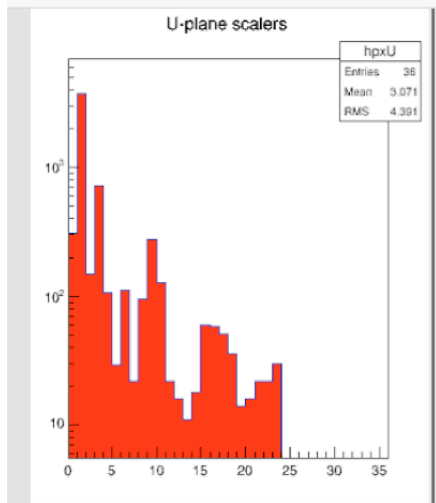
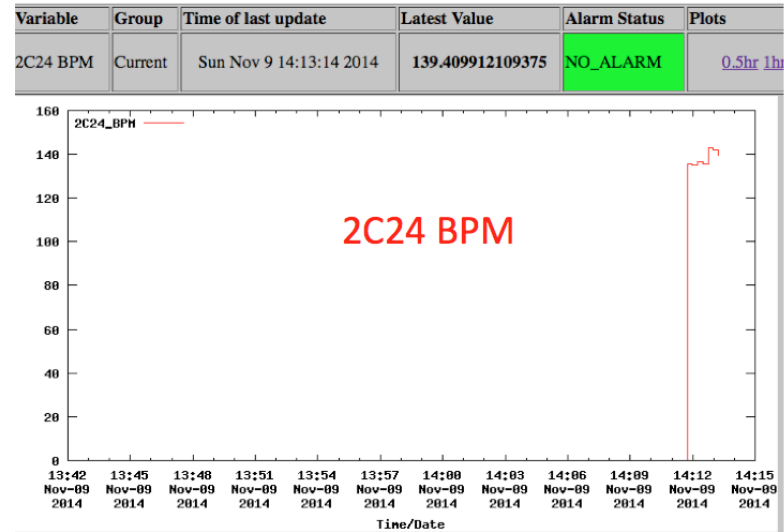


# First beam events in CLAS12!

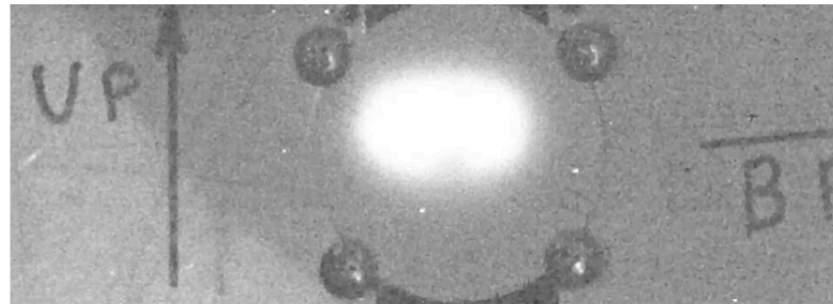
Too much background in ECal, not well tuned beam



BEAM ON  
(140 nA pulsed)



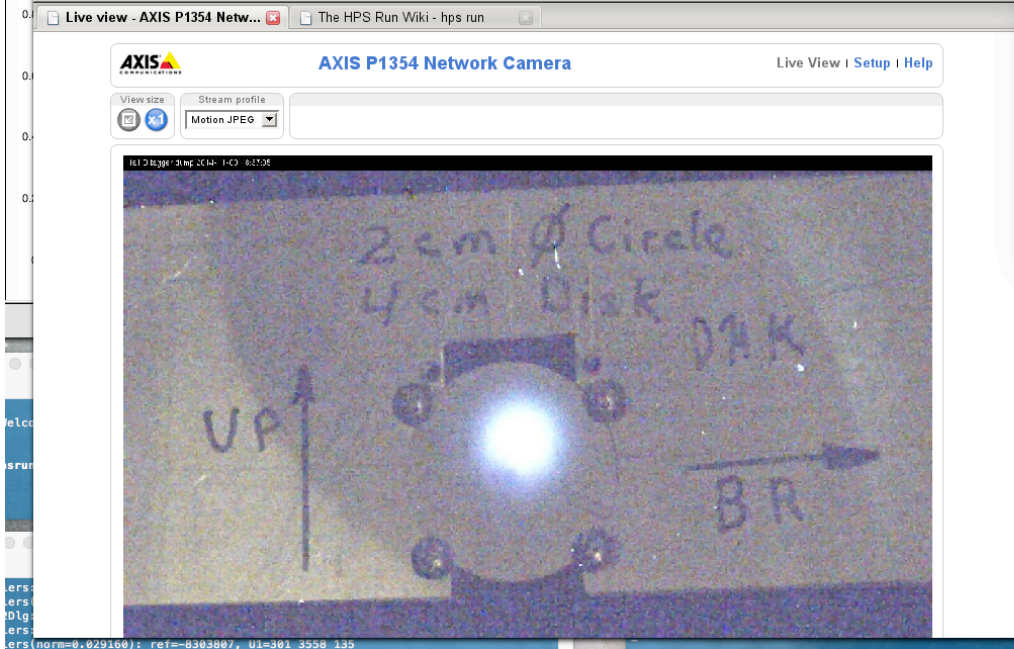
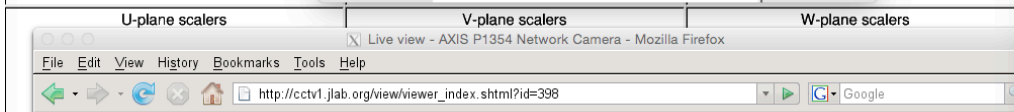
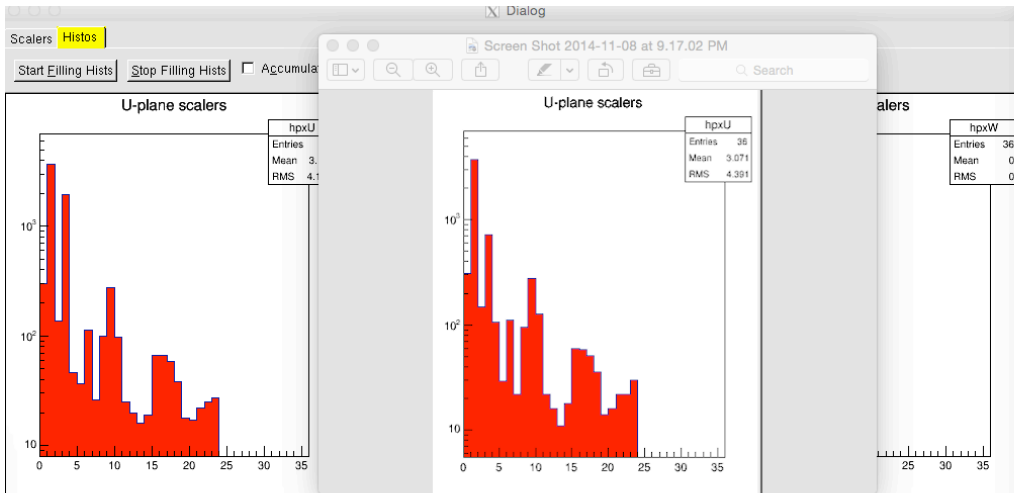
BEAM OFF



Tagger Dump Camera

EC – 24 PMTs ON

# CLAS12 Ecal: No background, well tuned beam



Hall B EPICS WWW interface

The time and date is Sun Nov 9 18:35:50 2014

The following table shows the latest EPICS values for the quantities you selected.

Variable	Group	Time of last update	Latest Value	Alarm Status	Plots
2C24 BPM	Current	Sun Nov 9 18:35:44 2014	139.194091796875	NO_ALARM	<a href="#">0.5hr</a> <a href="#">1hr</a> <a href="#">2hr</a> <a href="#">4hr</a> <a href="#">8hr</a> <a href="#">1day</a> <a href="#">3day</a> <a href="#">1wk</a> <a href="#">1mon</a> <a href="#">6mon</a>

2C24\_BPM

Time/Date

[0.5hr](#) [1hr](#) [2hr](#) [4hr](#) [8hr](#) [1day](#) [2day](#) [3day](#) [1wk](#) [1mon](#) [6mon](#)

Manually set the Y-range: lower limit  upper limit

Fine tune time window, FROM:  hours ago TO:  hours ago