

ARES Operation Meeting

Summary of week 48 / 2022

Willi Kuropka, on behalf of the ARES crew

Summary of week 48

Achievements

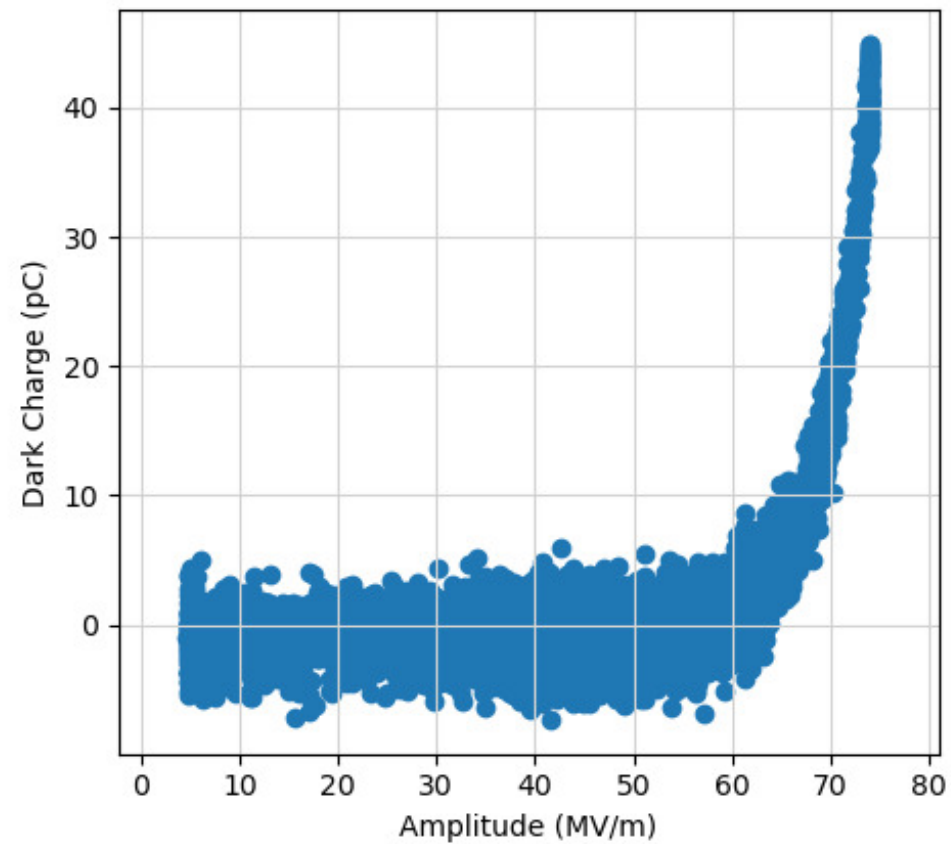
Difficulties

Notes

Mon	Tue	Wed	Thu	Fri
<ul style="list-style-type: none"> Cellar painting X-band cabling Scintillator BPM prototype installed FL screen station scintillator replaced 	<ul style="list-style-type: none"> New FL scintillator tested Adjusted LLRF settings of the gun with Matthias (MSK) Tested scintillator BPM with Hossein 	<ul style="list-style-type: none"> Work on BPM parameters by Bastian (MDI) Testing large beam sizes in FL section Acquired charge vs. pharos user attenuator data for gun simulations SH.E2 screen charge calibration test 	<ul style="list-style-type: none"> Characterizing beam in low energy section AutoAcc:Continuing BO vs. RL studies at higher charges for space charge influence 	<ul style="list-style-type: none"> Tunnel search training Gun beam characterization Charge map tool testing TWS2 phase correction doocs server/panel tests Pulse shot mode and charge counter tests
<ul style="list-style-type: none"> <i>Tunnel open</i> 	<ul style="list-style-type: none"> <i>Gun modulator charge voltage is limiting klystron output</i> 	<ul style="list-style-type: none"> Increased gun modulator charge voltage in 5V steps during the day Then increased gun SP over night 		<ul style="list-style-type: none"> <i>DAQ configuration/tests by V. Rybnikov</i> <i>Tunnel opened for the weekend</i>

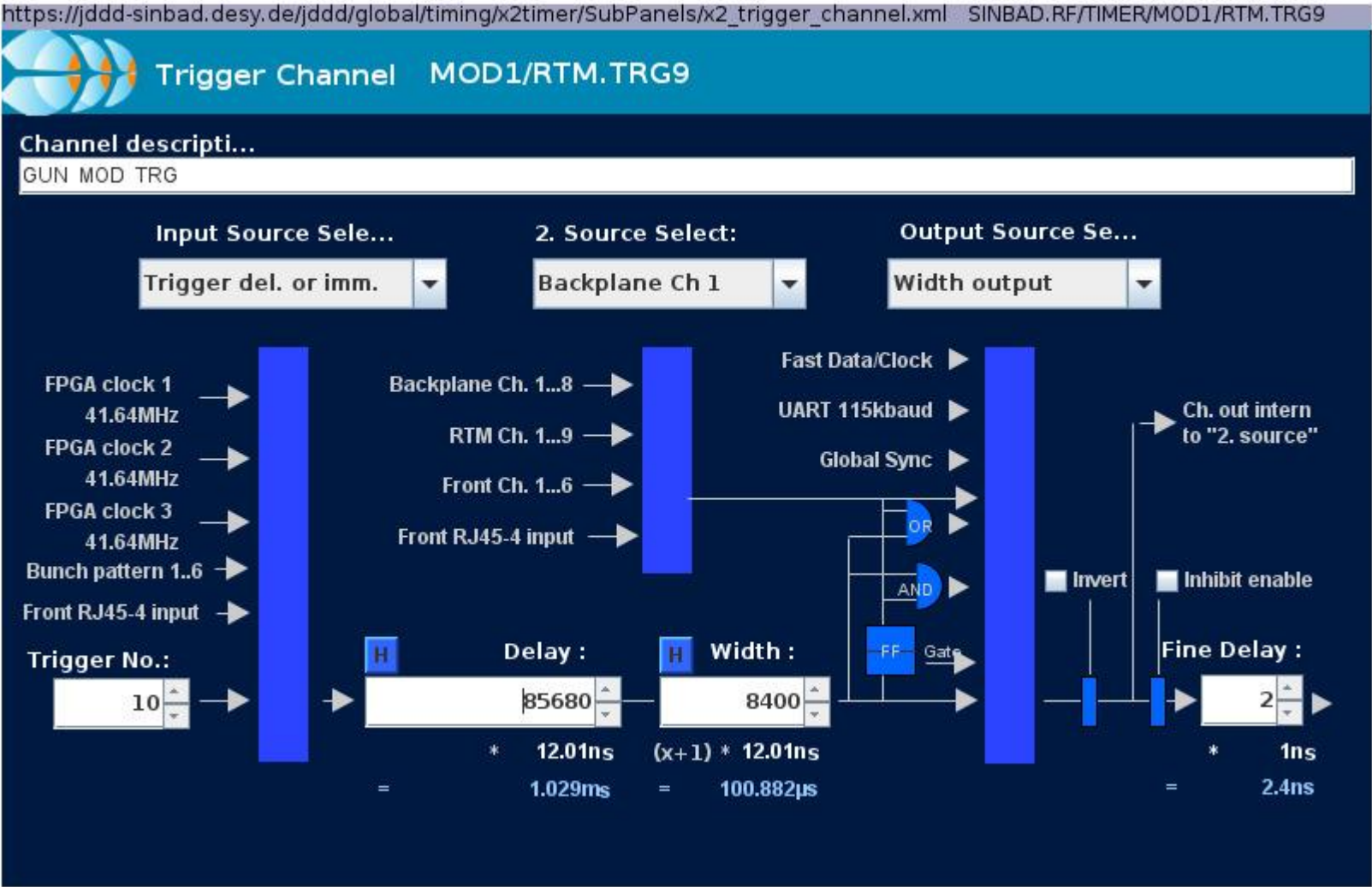
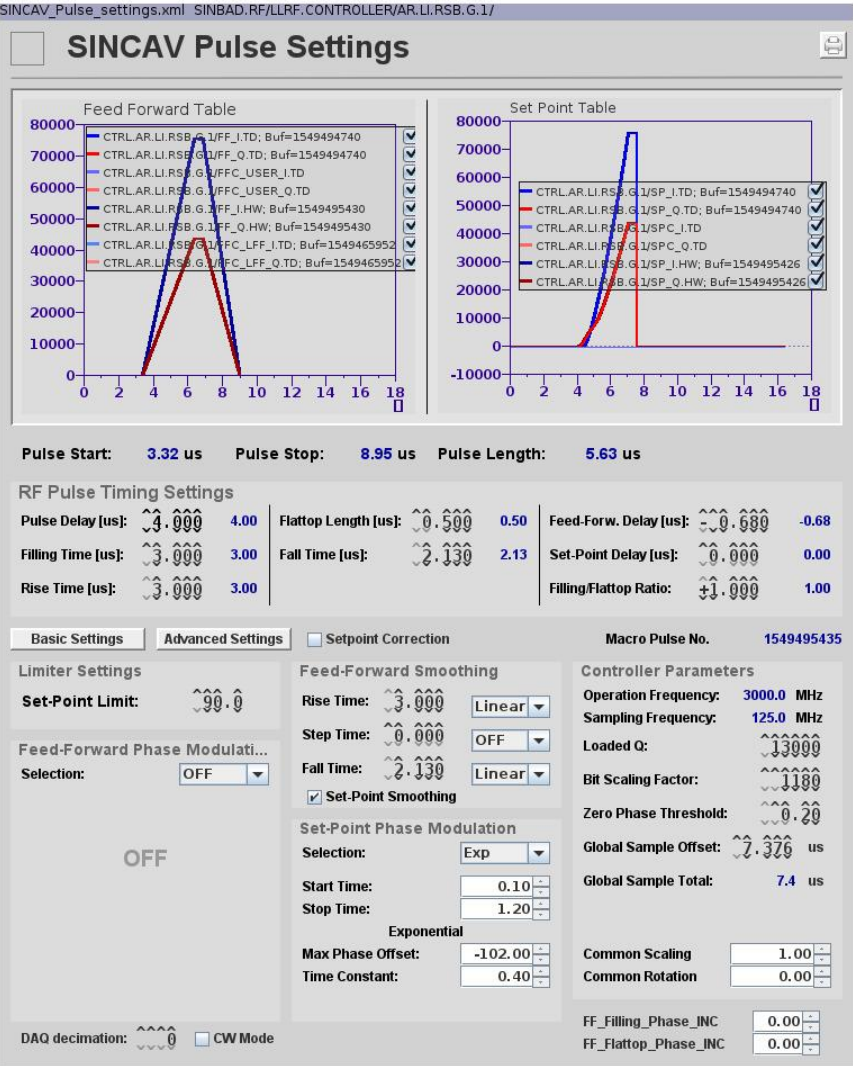
Recent dark charge measurement

Still old low level RF settings

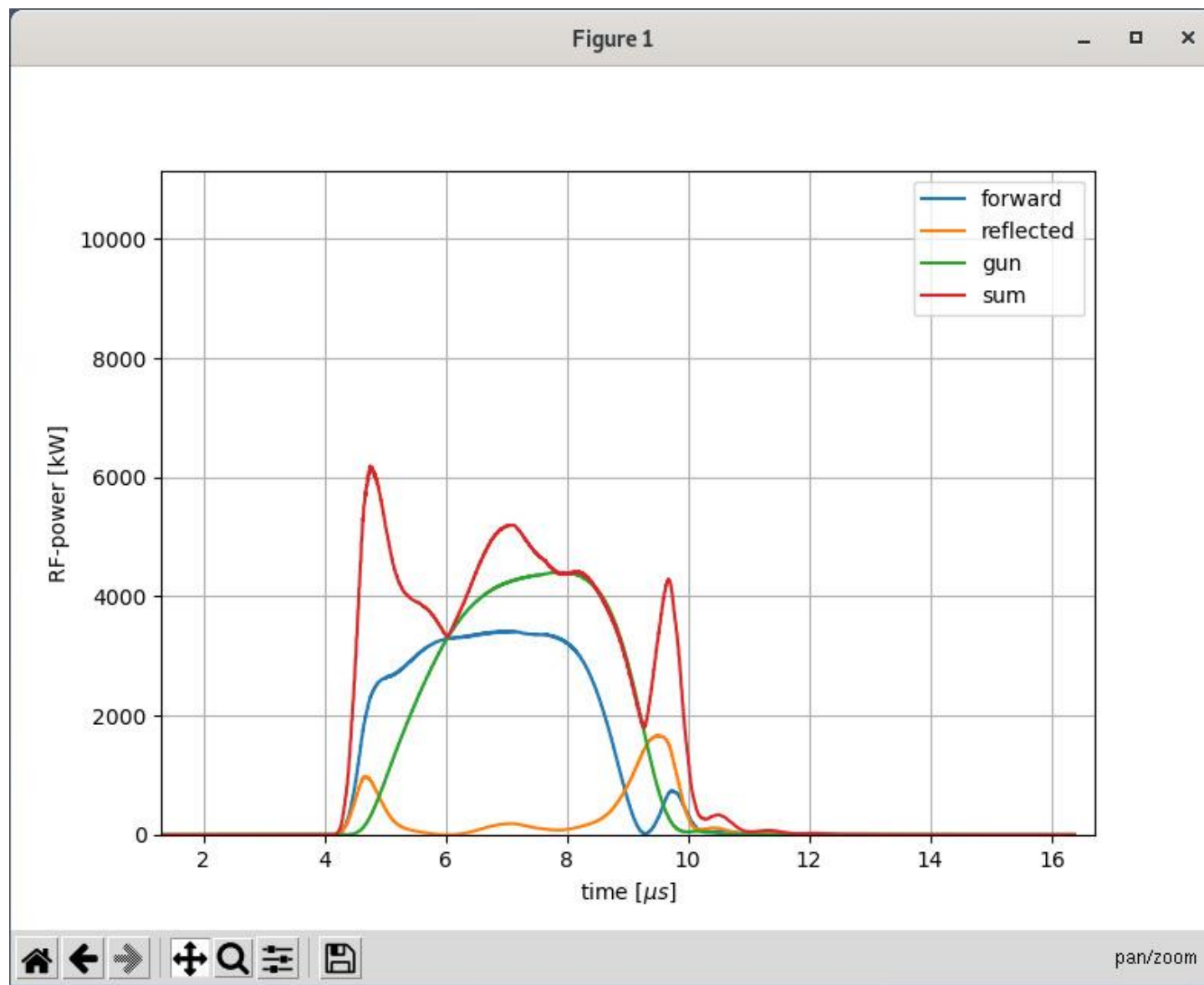


Adjusted gun pulse settings and moved modulator pulse timing

New settings

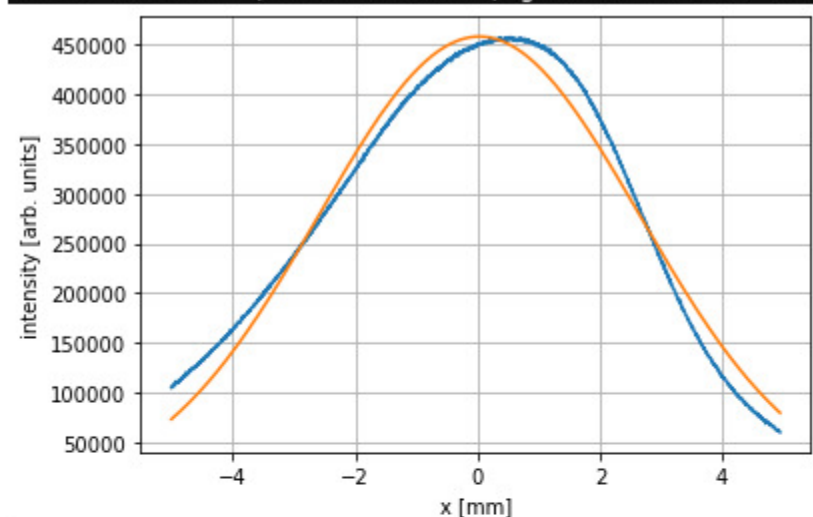


Gun power signals after pulse shape and timing optimization

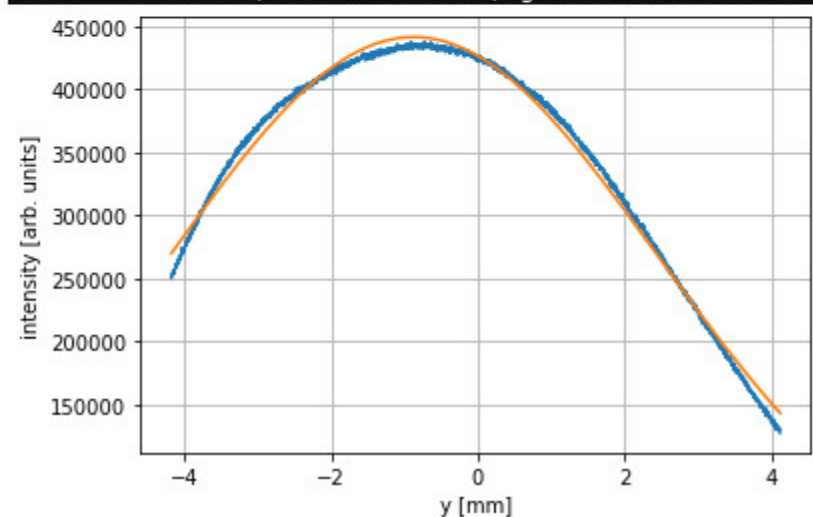


Larger beam size in FL section

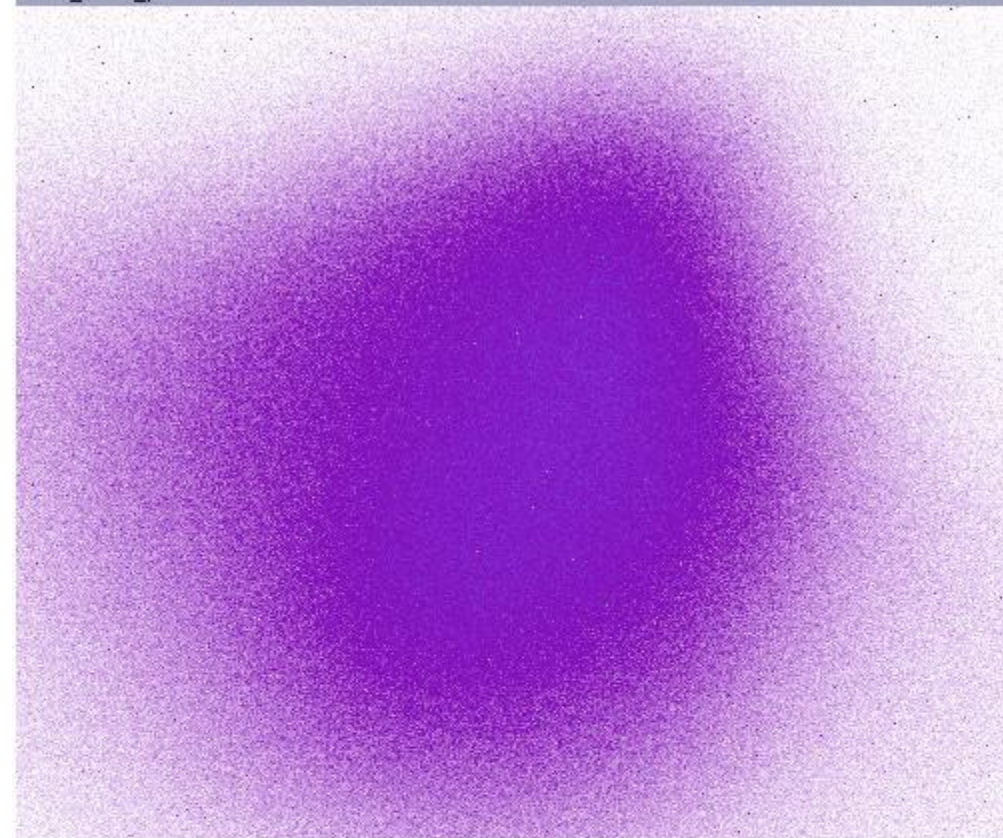
Mean: -0.072 mm, std: 2.251 mm, gaussian fitted std: 2.627 mm,FWHM: 6.147 mm



Mean: -0.390 mm, std: 2.135 mm, gaussian fitted std: 3.329 mm,FWHM: 0.005 mm



inair_cam_panel.xml doocs://acclxisrv03:610493365/SINBAD.DIAG/CAMERA/A...



Trigger

Trigger Delay (us)

Exposure (us)

Gain (dB)

Horizontal Binning (Pixels)

Vertical Binning (Pixels)

Image Format 0 = mono8
1 = mono12

Camera: Basler acA2440-20gm

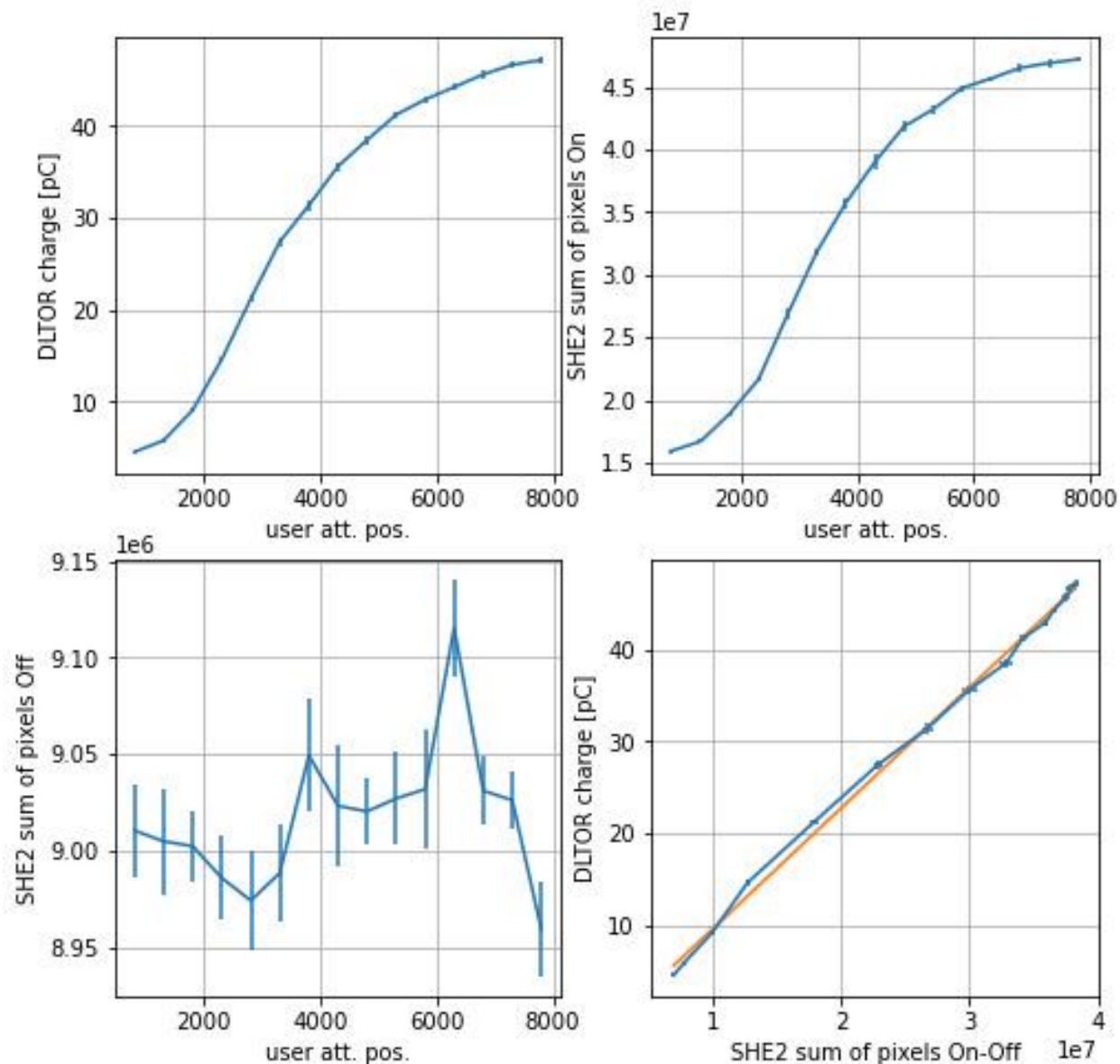
FPS: 9.7

Sensor Width (pixels): 2464

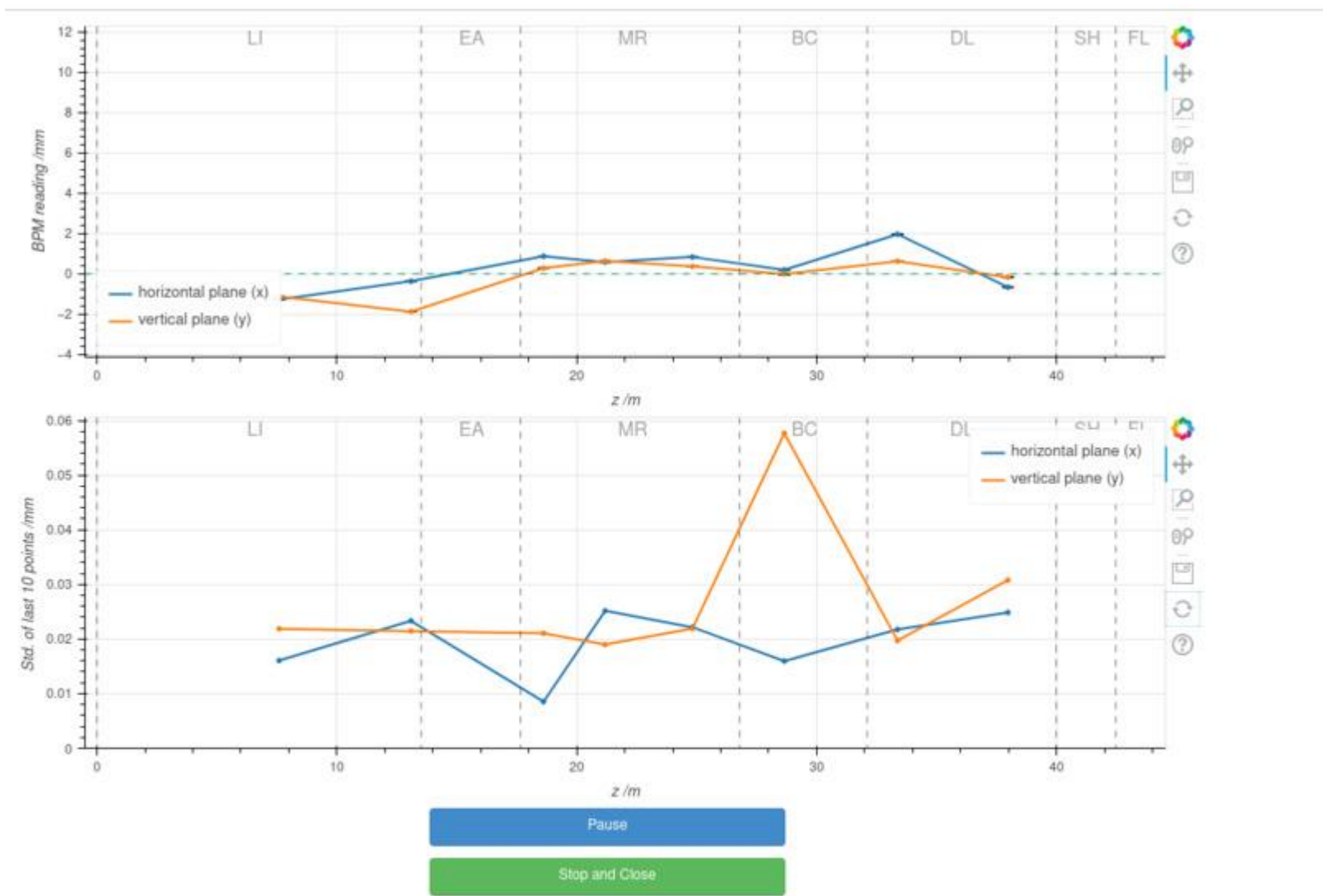
Sensor Height (pixels): 2056

Screen charge calibration

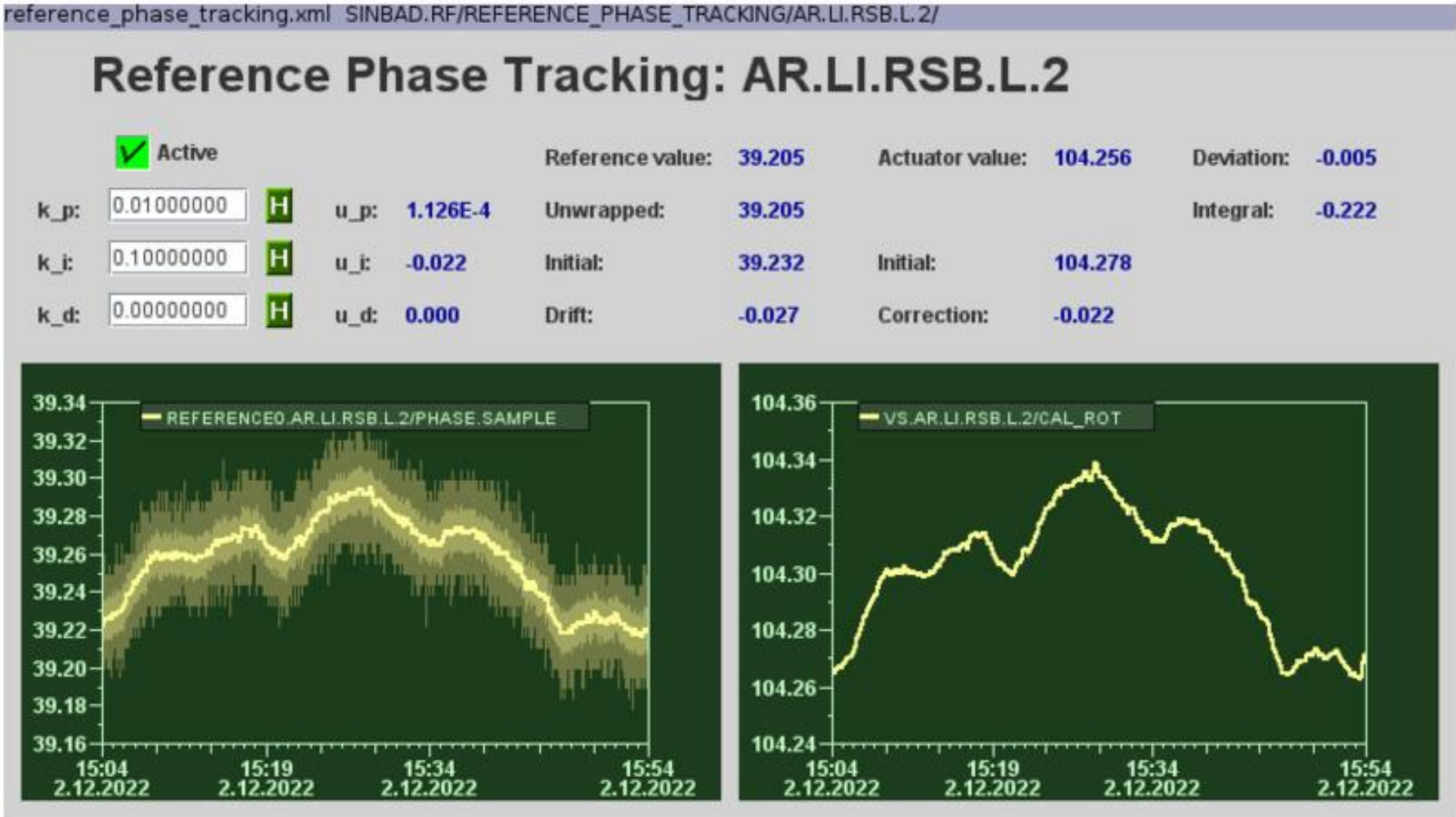
We tested the routine for different binning and gain settings of the camera as well as for different charge ranges. Unfortunately, the values are inconsistent and need further investigation.



Orbit live tool



TWS2 reference phase tracking panel



Today

- MIN cabling work for PolariX
- Painting of modulator cellar
- MCS work

Plan for this week

- Establish larger beam size in FL section
- Wednesday MDI intensity monitor tests
- Thursday AutoAcc
- Friday visit by CLARA operation lead
- Friday arrival time stability measurement

Schedule

Week 49

Date	Schedule
05.12.	Tunnel open
06.12.	Willi Kuropka
07.12.	Frank Mayet
08.12.	(Hannes Dinter)
09.12.	Thomas Vinatier

If you want to learn or join the shift: please give the shift leader a call (BKR 2840 / SINBAD Box 2454)