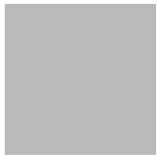




M. Boll :: Paul Scherrer Institut

SwissFEL exchange meeting RC report

Week 45



SwissFEL week 45

- Schedule
- Setup
- Photon energy / Pulse energy Aramis
- Photon energy / Pulse energy Athos
- Issues
- Plans for this week

SwissFEL week 45 / Schedule

Today Nov 7 - 13, 2022

RC: Boll, BD-support: Reiche, PC: Claudio C.

	Mon 11/7	Tue 11/8	Wed 11/9	Thu 11/10	Fri 11/11	Sat 11/12	Sun 11/13
12am	11p-7 MD	11p-7 Set-up	11p-7 Alvra	11p-7 Alvra	11p-7 Alvra	11p-7 Alvra	11p-7 Alvra
1am			11p-7 Maloja	11p-7 Alvra	11p-7 Alvra	11p-7 Maloja	11p-7 Alvra
2am				11p-7 Alvra	11p-7 Alvra	11p-7 Maloja	11p-7 Alvra
3am				11p-7 Alvra	11p-7 Alvra	11p-7 Maloja	11p-7 Alvra
4am				11p-7 Alvra	11p-7 Alvra	11p-7 Maloja	11p-7 Alvra
5am				11p-7 Alvra	11p-7 Alvra	11p-7 Maloja	11p-7 Alvra
6am				11p-7 Alvra	11p-7 Alvra	11p-7 Maloja	11p-7 Alvra
7am	7-3p Set-up (Weilbach)	7-3p Alvra, 11-12 keV	7-3p Maloja 390-450 eV & 500 eV	7-3p Alvra, 11-12 keV	7-3p Alvra	7-3p Maloja	7-3p Set-up (Boll, Weilbach)
8am				7-3p Maloja	7-3p Alvra	7-3p Maloja	
9am					7-3p Maloja		
10am					10:15 - 11 SwissFEL RC		
11am							
12pm							
1pm							
2pm							
3pm	3p-11p Set-up (Hiller)	3p-11p Alvra	3p-11p Maloja	3p-11p Alvra	3p-11p Alvra	3p-11p Maloja	3p-11p Set-up (Kittel)
4pm				3p-11p Maloja	3p-11p Alvra	3p-11p Maloja	
5pm					3p-11p Alvra		
6pm					3p-11p Alvra		
7pm					3p-11p Alvra		
8pm					3p-11p Alvra		
9pm					3p-11p Alvra		
10pm					3p-11p Alvra		
11pm	11p-7 Set-up	11p-7 Alvra	11p-7 Maloja	11p-7 Alvra	11p-7 Alvra	11p-7 Maloja	11p-7 Set-up

SwissFEL week 48

- Aramis (Alvra)
 - 11keV, 20-25fs (RMS) pulse duration, no requirements on BW
- Athos
 - 390eV, 450eV, 500eV, ~30fs FWHM / (C+, C-)
- Setup for this week already on Sunday

SwissFEL week 45

Photon & Pulse energy Aramis



SwissFEL week 45

Photon & Pulse energy Athos

Start
2022-11-07 08:00:47.214

End
2022-11-14 08:00:47.214

query expansion

PLOT

Athos photon energy and pulse energy

Data retrieved 2022-11-14 08:01:58.974



Highcharts.com

SwissFEL week 45 / Issues

- Athos instabilities
 - Slightly improved after Mizar alignment check, but still not good
 - Gun RF steps had to be readjusted several times a day
- Athos drifted in the night from Thursday to Friday (3800uJ → 1400uJ)
 - 4 BPMs in the undulator section were lost, so the orbit feedback started correcting to a wrong value.
Some electronic components had to be exchanged
 - Unfortunately the shift crew didn't get an alarm about that, so it was not clear to them whether the pulse energy drifted due to a real problem or due to changes applied by the users.
- Some RF trips of S10CB07 with a downtime around 10min.
- Some BLMs / LLMs (Linac3, Athos) had to be restarted on Saturday.

SwissFEL week 45 / Plans for this week

- Aramis:
 - 6.5keV, ~40fs for Bernina and Alvra → around 1.4mJ
 - Low horizontal jitter
- Athos:
 - 540eV (~4mJ), 710eV (~3.3mJ), 930eV (~2mJ)
C+, C- for Furka

Wir schaffen Wissen – heute für morgen

