

# Run coordinator report for Week 28/2021 @ SEM

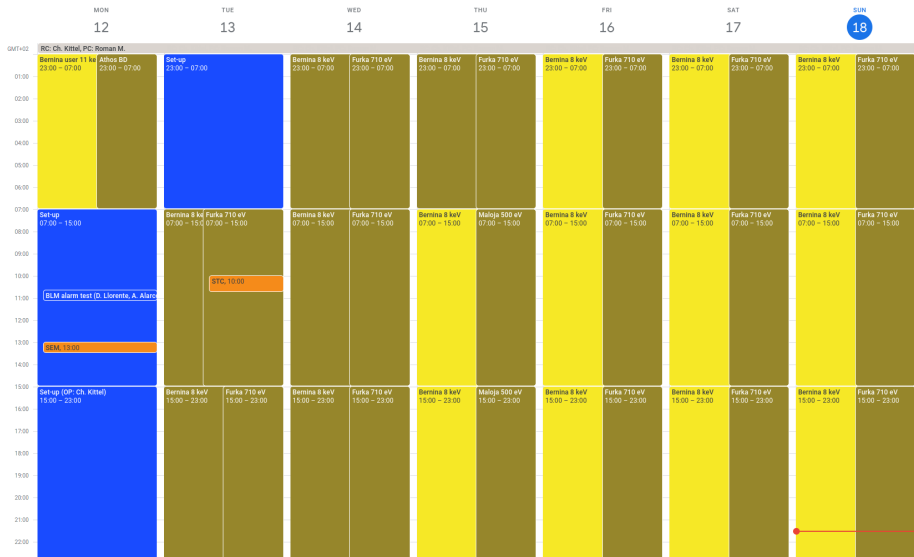
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# Overview

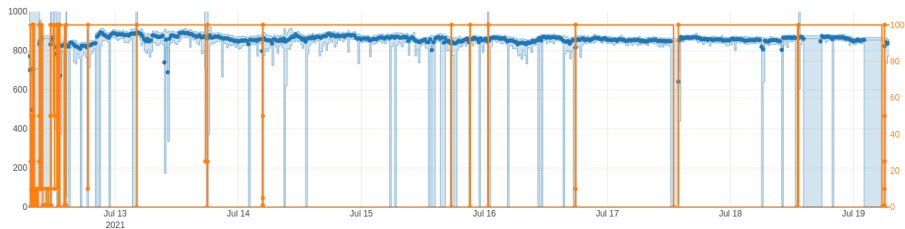
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# Summary of week 28 - Schedule

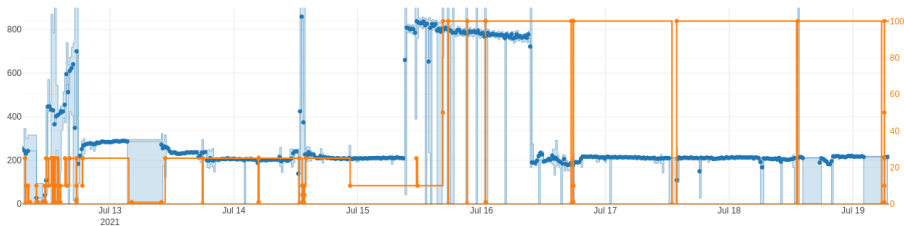


# Summary of week 28 - Lasing plots

## Aramis lasing and frequency



## Athos lasing and frequency



# Summary of week 28 - General

## Shift summaries set up days:

[elog:20519](#)

## Machine:

- Machine and beam checks (phasing, dispersion correction, bunch lengths, Athos optics)
- Bunch 2 gun energy set-up redone, having 1 deg RF phase offset seems to help

# Summary of week 28 - Aramis

## Aramis:

- *Monday:*  
lasing set up @ 8.0 keV, 830  $\mu$ J, BW = 0.14%
- *Tuesday:*  
photon pointing correction and initial look at spatial chirp [elog:20546](#)
- *Wednesday:*  
reduction of spatial chirp with diagnostic help of Henrik [elog:20549](#)
- *Rest of the week:*  
photon delivery for Bernina, PSICO not running

# Summary of week 28 - Athos

## Athos:

- *Monday:*  
lasing set up for Maloja @ 540 eV and for Furka @ 710 eV
- *Tuesday, Wednesday:*  
photon delivery to Furka @ 710 eV, with around 200  $\mu\text{J}$
- *Wednesday:*  
short pointing test with orbit from last BBA, better lasing mode seems feasible  
[elog:20553](#)
- *Thursday:*  
photon delivery for Maloja @ 540 eV, with around 830  $\mu\text{J}$   
slight loss adjustment to run @ 100 Hz
- *Rest of the week:*  
photon delivery to Furka @ 710 eV, with around 200  $\mu\text{J}$

# Summary of week 28 - Issues

## RF issues:

- *Monday*: SINSB04 went back to trigger
- *Saturday*: SINSB02 down, modulator & vacuum problems
- *Sunday*: SINXB01 down, communication interlock
- *Sunday night*: SINSB02 down, power supply problems

## Vacuum issues:

- *Tuesday*: SATMA02 pump down, Athos photon delivery delay

## Photon diagnostics issues:

- *Wednesday*: PSSS crystal broken? [elog:20550](#)

## Controls issues:

- *Monday & Tuesday*: linac 3 delta tau down, dechirpers and collimators affected
- *Saturday*: databuffer problems
- *Weekend*: archiver backend down



# Conclusions

## Aramis:

- quite stable this week on the machine side

## Athos:

- running without problems @ 100 Hz

## General:

- various RF problems caused some downtime this week, but luckily all were resolved in a reasonable time frame
- great work from the control room operators this week!
- great support from Sven and Eugenio throughout the week