

PSI Center for Accelerator Science
and Engineering

SF RC Report 2024 Week 25

Qiao Geng

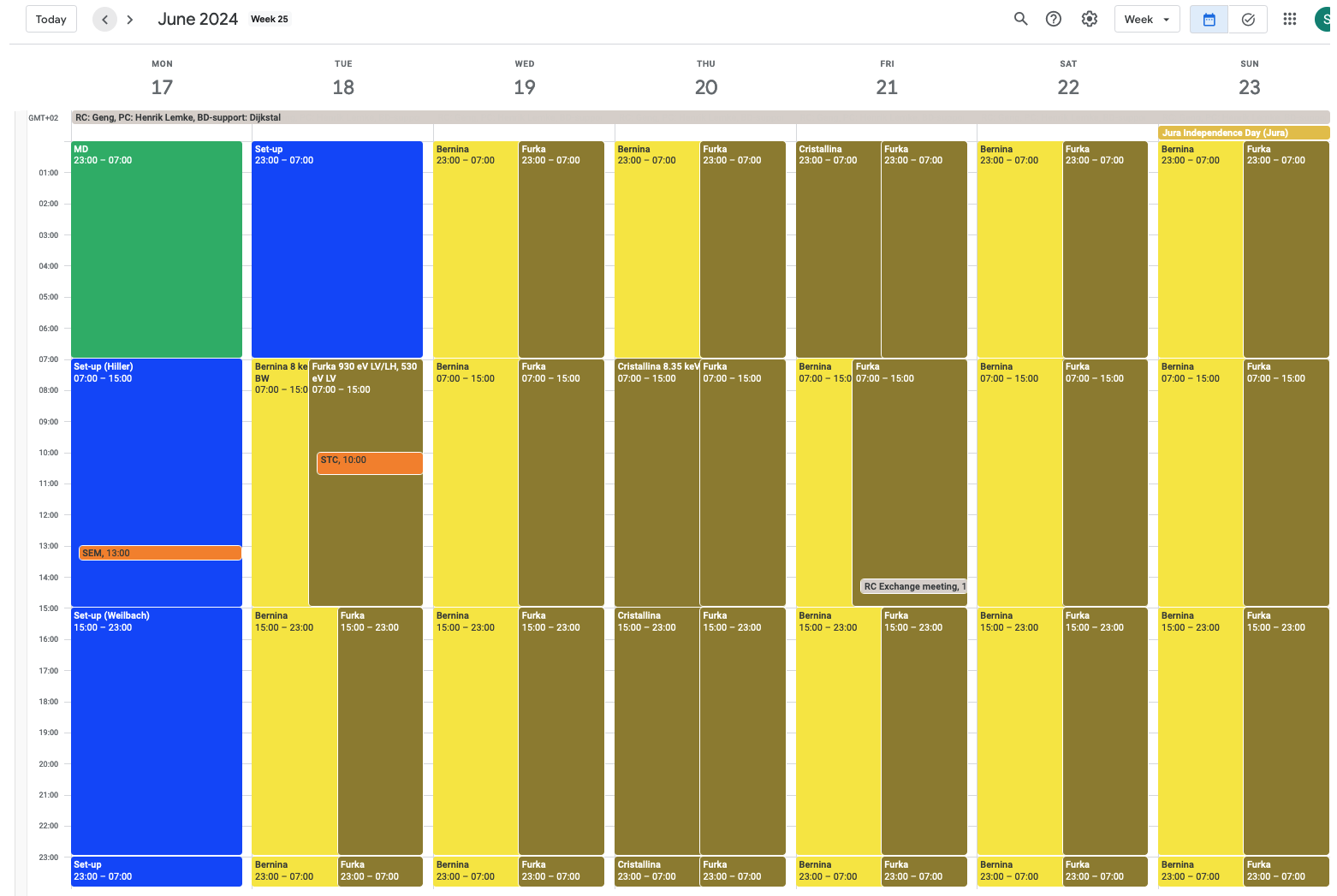
N. Hiller

PSI 24.6.2024

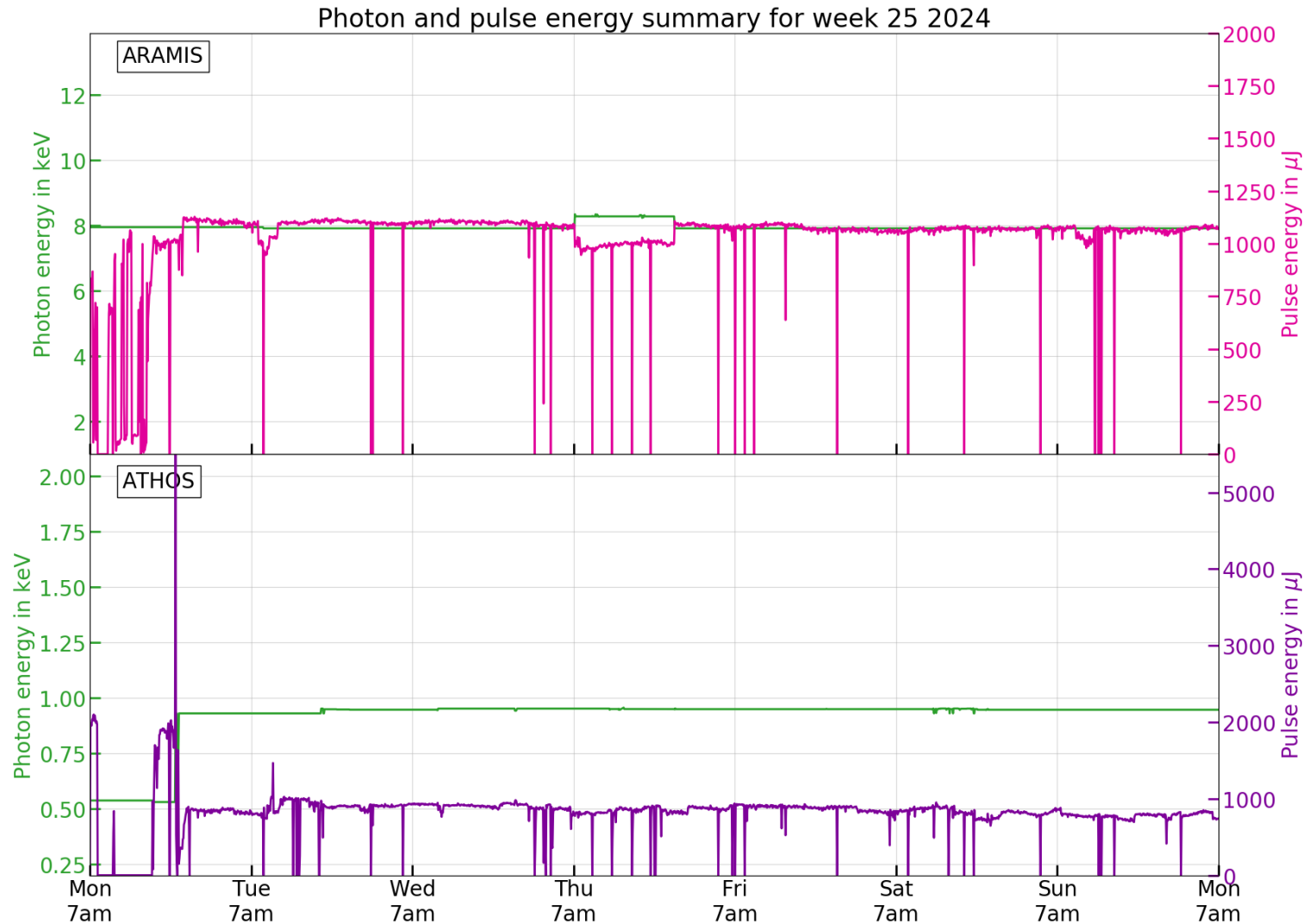
Week 25 17.-24.6.2024



- User Operation in Bernina at 8 keV (Cristallina on Thur 8.35 keV)
- Beamline development in Furka
930 eV LH/LV
530 eV LV -> requested, but not used



Performance during the week

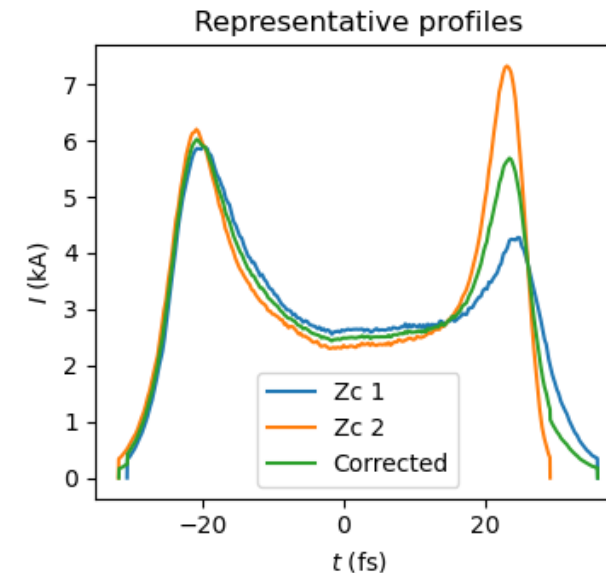
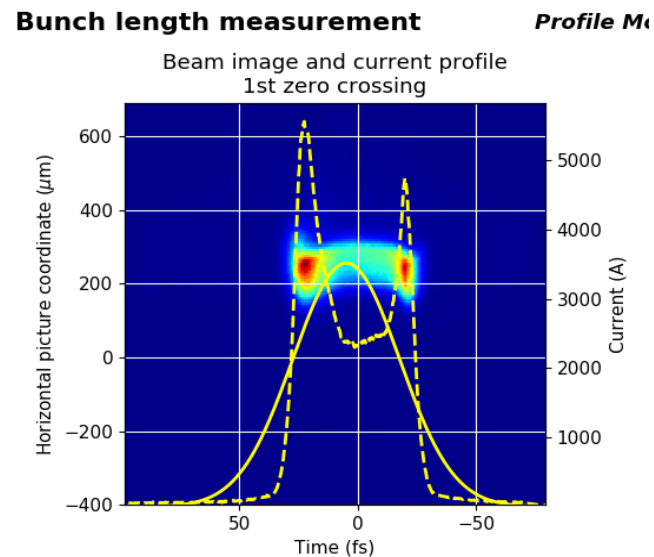


Fairly quiet week with no long downtimes.

The performance was rather constant with small degradations.

However we are below record performance in both lines.

- for Aramis beam:
 - Bunch length: elog: <https://elog-gfa.psi.ch/SwissFEL+commissioning+data/55707>
 - FEL power profile: <https://elog-gfa.psi.ch/SwissFEL+commissioning+data/55708>
 - 22fs FWHM/2.35 \rightarrow \sim 50 fs FWHM



- **Aramis:**
 - The last 4 undulator modules are not contributing at the moment. FEL performance is thus below record, but still very good at 1.1 mJ (8 keV), the record would be around 1.4 mJ
 - Aramis gas detector -> GUDE for the rotary gauge switched itself off a couple of times (investigating what causes this)
- **Athos:**
 - “Jumps in performance” for Athos -> had to re-adapt BC2 compression targets frequently