Contribution ID: **102** Contribution code: **MOP51** Type: **Contributed Poster**

Short FEL Pulses with Tunable Duration from Transversely Tilted Beams at SwissFEL

Monday, 22 August 2022 17:10 (20 minutes)

FEL pulses with an easily tunable duration are of great benefit to user experiments with high requirements on the temporal resolution. A transverse beam tilt is well suited to shorten the pulse duration in a controlled manner. We consider three methods of tilt generation: rf deflecting structures, lattice dispersion in combination with an energy chirp, and transverse wakefields from C-band accelerating cavities. We use monochromator scans in combination with an energy-chirped beam to diagnose the reduction in pulse duration.

I have read and accept the Privacy Policy Statement

Yes

Primary authors: DIJKSTAL, Philipp (Paul Scherrer Institut); PRAT, Eduard (Paul Scherrer Institut); REICHE, Sven (Paul Scherrer Institut)

Presenters: DIJKSTAL, Philipp (Paul Scherrer Institut); PRAT, Eduard (Paul Scherrer Institut); REICHE, Sven (Paul Scherrer Institut)

Session Classification: Monday posters

Track Classification: SASE FEL