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

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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.

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