

Abstract Submitted
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THz based electron bunch length monitoring at the quasi-cw SRF accelerator ELBE BERTRAM GREEN, SERGEY KOVALEV, HZDR, ALAN FISHER, SLAC, CHRISTIAN BAUER, MICHAEL KUNTZSCH, ULF LEHNERT, RICO SCHURIG, HZDR, TORSTEN GOLTZ, DESY, PETER MICHEL, HZDR, NIKOLA STOJANOVIC, DESY, MICHAEL GENSCH, HZDR — In the past few years the quasi-cw SRF electron accelerator ELBE has been upgraded so that it now allows to compress electron bunches to the sub-picosecond regime. The actual optimization and control of the electron bunch form represents one of the largest challenges of the coming years. In particular with respect to the midterm goal to utilize the ultra-short electron bunches for Laser-Thomson scattering experiments or high field THz experiments. Current developments of THz based electron bunch diagnostic are discussed and an outlook into future developments is given.

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