

# Sub-femtosecond time-resolved measurements of electron and photon beams

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Time-resolved diagnostics are fundamental for x-ray free-electron lasers (FELs). Radio-frequency (RF) transverse deflector structures (TDSs) are typically employed to characterize the temporal properties of the electron beams driving FELs. In this contribution, we present time-resolved measurements with a resolution below one femtosecond using a C-band and X-band RF TDS at SwissFEL. Measurements with a sub-femtosecond resolution are of crucial importance for ultra-fast x-ray FEL applications.

## Footnotes

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