

SP1: Performing ultra-fast experiments with high dynamic range by high rep-rate pulse-to-pulse detection: Towards 10 fs time resolution at TELBE

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Sub cycle dynamics on THz driven Phenomena are an emerging class of experiments in ultra-fast science. Hence THz pump laser probe experiments are an essential class of experiments at the new TELBE THz facility. Even the most modern accelerators can be synchronised only down to 80 fs (peak to peak) by active feedbacks. For that reason a unique high-rep-rate arrivaltime monitoring has been developed at TELBE that provides timing down to (in theory) 12 fs by post-mortem arrivaltime-jitter correction

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