

LLRF Topical Workshop - Timing, Synchronization, Measurements and Calibration



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Optical Synchronisation Systems for the CLARA facility

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The Compact Linear Accelerator for Research and Applications (CLARA) is a 250 MeV ultrabright beam test facility at STFC Daresbury Laboratory. Originally conceived as a free electron laser test facility, timing is based on an actively stabilised optical timing architecture, incorporating optoelectronic systems for beam arrival diagnostics and laser/RF client synchronisation. The facility is undergoing commissioning in preparation for user exploitation, scheduled to begin mid-2025, which includes plans for combined laser-electron beam experiments with strict demands on synchronisation. We report the status of the CLARA facility, focussing on the development and installation of systems for timing and synchronisation, and provide an outlook towards the start of user operations.

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