## LLRF Topical Workshop - Timing, Synchronization, Measurements and Calibration



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## Toward ultra-low timing-jitters for beam-driven plasma accelerators

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Recent advances of plasma-based accelerators showed the feasibility to generate multi GV/m gradients for ultra-short electron bunches to be used for user-oriented applications. The shot-to-shot stability of the plasma-accelerated beam is of fundamental importance and represents the last gap to fill to fully compete with state-of-the-art radio-frequency accelerators. In this context we discuss the required stability in terms of timing-jitter that is foreseen for the development of a plasma accelerator facility.

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