

Single shot longitudinal profile monitors using Smith-Purcell radiation

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Smith-Purcell radiation has the potential of providing information on the longitudinal profile of an electron bunch.

Research is ongoing both at FACET and at SOLEIL to study how this radiation could be used to build a single shot longitudinal profile monitor. A brief status of these two experiments will be presented, including recent experimental results showing how a change in bunch length modifies the Smith-Purcell radiation signal.

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