

Diagnostics for the micro-bunching instability at KARA

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At the Karlsruhe Research Accelerator (KARA), the micro-bunching instability is investigated during regular low-alpha runs. Therefore, several diagnostics setups are used for time-resolved and synchronous measurements of the different bunch parameters with the long-term goal to reconstruct the longitudinal phase space. This allows to study the CSR intensity, the bunch length and the horizontal bunch size –as a measure for the energy spread –with a single-turn resolution.

In this contribution, we give an overview about the different setups and present first results.

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