



Contribution ID: 16

Type: **Oral presentation**

Characterization tests of cSTART's beam position monitor

Tuesday 13 May 2025 10:00 (30 minutes)

The scientific objective of the cSTART project (compact SStorage ring for Accelerator Research and Technology) is the proof of concept for the injection and circulation of ultrashort electron bunches in a storage ring and the demonstration of novel laser-plasma accelerators (LPA) as injectors for storage rings. The cSTART project at KIT is in the phase of the FDR (final design report), and already most of the diagnostics system for operation have been ordered and a few were delivered.

Meanwhile, a prototype of the beam position monitor has been tested at KIT, either on a bench with a signal generator or with electron beams at the FLUTE photoinjector Linac. The aim of these tests is to assure the conformity of the readout units with the specifications required for the cSTART storage ring. In this presentation, we will describe briefly the cSTART project emphasizing on the specifications of the various diagnostics systems, and we will report on the different characterization tests which have been carried out providing perspective on the future plans and preparations.

Author: EL KHECHEN, Dima (KIT)

Co-authors: Prof. MÜLLER, Anke-Susanne (KIT); Dr BLOMLEY, Edmund (KIT); Dr STEINMANN, Johannes L. (KIT); Dr GETHMANN, Julian (KIT); Dr SCHUH, Marcel (KIT); Prof. FUCHS, Matthias (KIT); Dr SMALE, Nigel J. (KIT); Mr LEBAN, Peter (i-Tech); Dr RUPRECHT, Robert (KIT)

Presenter: EL KHECHEN, Dima (KIT)

Session Classification: Session 5

Track Classification: BPM