Contribution ID: **2** Type: **not specified**

Low-energy particle detection at the Heidelberg Cryogenic Storage Ring

Monday, 9 May 2016 19:00 (25 minutes)

First experimental beamtimes have been performed at the Cryogenic Storage Ring (CSR) of the Max Planck Institute for Nuclear Physics (MPIK) in 2015. The CSR is a fully electrostatic machine operating at ~6 K temperature and at typical ion energies of ~100…0.5 keV/u. The experimental programme focuses on atomic and molecular physics. Product particle detection is challenged by, both, the low temperature of the CSR beam pipe and the low particle energies.

The talk presents a movable, single-particle counting detector that has been developed at MPIK. The device is compatible with the cryogenic environment of CSR and suitable for lowest ion energies. It was used productively in the initial 2015 beamtimes and now serves as prototype for several further CSR detectors of its kind.

The talk summarises the expertise gathered during operation of the device, and closes with a brief overview of different, but related, detector equipment that is being prepared for upcoming CSR beamtimes.

Primary author: Dr KRANTZ, Claude (Max-Planck-Insititut für Kernphysik)

Presenter: Dr KRANTZ, Claude (Max-Planck-Insititut für Kernphysik)

Session Classification: Talks