

**Plenarvortrag** PV II Mo 11:45 K.11.24 (HS 33)  
**FAIR - a heavy ion accelerator facility for high intensity and high brightness ion beams** — ●OLIVER KESTER — GSI, Planckstraße 1, 64291 Darmstadt

The facility for antiproton and ion research - FAIR - will produce secondary beams of unprecedented intensities. In order to provide intense secondary beams for world-class experiments, heavy ion driver beams of highest intensities and high beam quality will be required. In order to reach these goals and uranium intensities above 1011 ions per cycle,

the injector chain has to be modified accordingly and the SIS100 has to be tailored to the needs. A unique superconducting, high resolution high energy fragment separator, the Super-FRS, is under construction to provide most exotic nuclei to the FAIR facility. A system of storage rings will collect and cool secondary particles from the FAIR separators and supply experiments with beams of highest brilliance. On-going developments comprise the whole accelerator chain with focus on ion sources, beam transport, rf-systems and cavities, beam instrumentation, beam cooling, vacuum systems as well as beam loss handling.