



# PHYSICS AND ASTRONOMY SEMINAR

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## **“Accelerator systems development of the Facility for Antiprotons and Ion Research – FAIR”**

### Abstract

The facility for antiproton and ion research – FAIR – will produce secondary beams of unprecedented intensities. In order to produce such intense secondary beams and to provide the according primary beams, FAIR will explore the intensity frontier of heavy ion accelerators. The main driver accelerators of FAIR will be the synchrotrons SIS18 and SIS100. The synchrotrons will be provided with ion beams by the Universal Linear Accelerator (UNILAC), which is presently accelerates the highest intensities of heavy ion beams. In order to produce the most intense rare isotope beams (RIB) at highest energies, a unique superconducting fragment separator is under construction. A system of storage rings will collect and cool secondary particles from the FAIR separators and will supply experiments with beams of highest brilliance. Therefore developments, which address the whole accelerator chain of FAIR are ongoing. The developments of ion sources, beam transport systems, linac cavities, beam instrumentation, magnets, as well as beam dynamics issues will be discussed.

**Tuesday, July 19, 2016**

**2:00 p.m.**

**Engineering Computer Science**

**Room 108**