

Plenarvortrag

PV XVII Do 11:00 RW 1

The FAIR Accelerator Complex: Challenges and Prospects

— •OLIVER KESTER¹, WEINRICH UDO¹, SPILLER PETER¹, EICKHOFF HARTMUT¹, KRÄMER DIETER², STECK MARKUS¹, GROENING LARS¹, KOLLMUS HOLGER¹, KNIE KLAUS¹, JACOBY WOLFGANG², HAGENBUCK FRANK¹, PRASUHN DIETER³, MAIER RUDOLF³, and WINKLER MARTIN¹ — ¹GSI Helmholtzzentrum für Schwerionenforschung, Darmstadt, Germany — ²FAIR GmbH, Darmstadt, Germany — ³Forschungszentrum Jülich, Jülich, Deutschland

The Facility for Antiproton and Ion Research - FAIR- is a new, unique

international accelerator complex dedicated to the research with antiprotons and ions. FAIR employs heavy ion synchrotrons which will accelerate heavy ion beam with unprecedented intensities in order to generate intense secondary beams. These beams of rare isotopes or antiprotons will be collected and cooled for precision experiments. FAIR relies therefore on accelerator systems employing cutting edge technologies in magnet design, cryogenics, rf-cavities, beam cooling, beam instrumentation and extreme high vacuum etc. The challenges and prospects of this unique system are addressed and discussed.