

Plenarvortrag

PV III Di 9:00 Audimax

Accelerator Challenges of FAIR Phase 0 — ●MEI BAI, RALPH BAER, CHRISTINA DIMOPOULO, PETER GERHARD, LARS GROENING, RALPH HOLLINGER, ANDREAS KRAEMER, FRANK HERFURTH, DAVID ONDREKA, STEPHAN REIMANN, MARCUS SCHWICKERT, MARIUSZ SAPINSKI, MARKUS STECK, SERGY LITEVINOV, JENS STADLMANN, PETER SPILLER, KLAUS TINSCHERT, and UDO WEINEICH — Planckstrasse 1, Darmstadt

After two years shutdown, the GSI accelerators and the latest addition of storage ring CRYRING, will be back into operation in 2018 as the FAIR phase 0 with the goal to fulfill the needs of GSI/FAIR scientific community and the needs of FAIR accelerators and detector development. Even though GSI has been well known of a variety of ions beams

ranging from proton up to uranium for the research in multi scientific areas such as nuclear physics, astrophysics, biophysics, material science, the upcoming beam time in 2018 faces a number of challenges in recommissioning its existing circular accelerators with brand new control system and significant upgrade of beam instrumentations, as well as in rising failures of dated components and systems. As the work horse for the past two decades, the cycling synchrotron SIS18 has been undergoing a set of upgrade measures for fulfilling future FAIR operation, among which many measures will also be commissioned during the upcoming beam time. This paper presents the highlights of the challenges such as re-establish the high intensity heavy ion operation as well as parallel operation mode for serving multi users. The status of preparation including commissioning results will also be reported.