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## **Superconducting magnets for SIS100 at FAIR –status update**

*Wednesday, 10 May 2023 16:30 (2 hours)*

At the Facility for Antiproton and Ion Research in Darmstadt, Germany, fast-cycled superferic magnets will be utilised for ion optics in the main accelerator SIS100. After an intense testing campaign, the full series of dipole magnets has been equipped with cryogenic beam vacuum chambers and is ready for tunnel installation. Currently ongoing is the procurement of the quadrupole and corrector magnets. By design, each main quadrupole is combined with at least one corrector magnet to form a so-called quadrupole unit. Two of such units are then, together with further functional elements, integrated into a common cryostat to form quadrupole doublet modules. Details on the processes of production, integration, and testing as well as an update of the progress will be presented.

Moreover, to sample the installation processes of SIS100, study collective effects in an module ensemble and gain experience in operation, several magnet modules and components are currently aligned at a test facility to model a cell of SIS100. An overview of this so-called String Test setup, its commissioning and first test results will be included in the presentation.

### **Funding Agency**

### **Footnotes**

### **I have read and accept the Privacy Policy Statement**

Yes

**Primary author:** ROUX, Christian (GSI Helmholtzzentrum für Schwerionenforschung GmbH)

**Co-authors:** BLELE, Alexander (GSI Helmholtzzentrum für Schwerionenforschung GmbH); WALDT, Andreas (GSI Helmholtzzentrum für Schwerionenforschung GmbH); SZWANGRUBER, Anna (GSI Helmholtzzentrum für Schwerionenforschung GmbH); STREICHER, Branislav (GSI Helmholtzzentrum für Schwerionenforschung GmbH); SCHROEDER, Claus (GSI Helmholtzzentrum für Schwerionenforschung GmbH); D'AGOSTINO, Domenico (Istituto Nazionale di Fisica Nucleare); KAETHER, Florian (GSI Helmholtzzentrum für Schwerionenforschung GmbH); WALTER, Franz (GSI Helmholtzzentrum für Schwerionenforschung GmbH); PSCHORN, Ina (GSI Helmholtzzentrum für Schwerionenforschung GmbH); MEIER, Jan (GSI Helmholtzzentrum für Schwerionenforschung GmbH); KETTER, Jochen (GSI Helmholtzzentrum für Schwerionenforschung GmbH); KOZLOWSKI, Kamil (GSI Helmholtzzentrum für Schwerionenforschung GmbH); SUGITA, Kei (GSI Helmholtzzentrum für Schwerionenforschung GmbH); BOZYK, Lars (GSI Helmholtzzentrum für Schwerionenforschung GmbH); JANKE, Matthias (GSI Helmholtzzentrum für

Schwerionenforschung GmbH); PYKA, Niels (GSI Helmholtzzentrum für Schwerionenforschung GmbH); AGUAR BARTOLOME, Patricia (GSI Helmholtzzentrum für Schwerionenforschung GmbH); SPILLER, Peter (GSI Helmholtzzentrum für Schwerionenforschung GmbH); KOWINA, Piotr (GSI Helmholtzzentrum für Schwerionenforschung GmbH); SZWAN-GRUBER, Piotr (GSI Helmholtzzentrum für Schwerionenforschung GmbH); WILFERT, Stefan (GSI Helmholtzzentrum für Schwerionenforschung GmbH); ZELLER, Stefan (GSI Helmholtzzentrum für Schwerionenforschung GmbH); WINKLER, Tiemo (GSI Helmholtzzentrum für Schwerionenforschung GmbH); GAMBARDELLA, Umberto (Istituto Nazionale di Fisica Nucleare); MARUSOV, Vasily (GSI Helmholtzzentrum für Schwerionenforschung GmbH)

**Presenters:** ROUX, Christian (GSI Helmholtzzentrum für Schwerionenforschung GmbH); SUGITA, Kei (GSI Helmholtzzentrum für Schwerionenforschung GmbH)

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