



Contribution ID: 38

Type: **not specified**

Actual survey and alignment activities at GSI for FAIR

The preparatory work for the construction of FAIR, the International Facility for Antiprotons and Ion Research, located next to GSI Helmholtz Center in Darmstadt/Germany, is in good progress. Thus the erection of the building shell for the facility can begin as scheduled in 2015. Meanwhile all of the approximately 1400 65m-long drilled concrete piles for stabilization the substructure and for bearing the foundation above ground have been set in place.

Related to the future machines and experiments a variety of design and planning work concerning the single accelerator components as cryostats and magnets et al as well as geometrical measurements have been done by the s&a group. Just a few representative tasks will be highlighted in this presentation:

For the first-of-series superconducting dipole of the intended large synchrotron SIS100 fiducialization measurements and stability checks during the warm-cold-warm cycles have been completed, as well as examinations for the quality assurance.

The storage ring CRYRING as a test facility for FAIR, that will be assembled and commissioned as part of the existing GSI, is also an important topic for all kind of accelerator specific measurement activities.

The expected ground settlements of the existing GSI buildings and their accelerator machines by reason of the huge construction works for FAIR led to a campaign of large network measurements and evaluations, classified as the reference measurement, spanning almost the entire GSI facility.

Primary authors: Mrs PSCHORN, Ina (GSI Helmholtzzentrum für Schwerionenforschung GmbH); Mrs KNAPPMEIER, Kerstin (GSI Helmholtzzentrum für Schwerionenforschung GmbH); MIERTSCH, Torsten (GSI Helmholtz Centre for Ion Research); Mr VELONAS, Vasileios (GSI Helmholtz Center for Heavy Ion Research)

Presenter: Mr VELONAS, Vasileios (GSI Helmholtz Center for Heavy Ion Research)