

Contribution ID: 195 Contribution code: THYD1 Type: Invited Oral Presentation

FAIR completion of construction works, towards commissioning and first science

Thursday 11 May 2023 11:00 (30 minutes)

The international accelerator facility FAIR, one of the largest science projects worldwide, is being built in Darmstadt, Germany. At FAIR, matter that usually only exists in the depth of space will be produced in a lab for research. With the planned experiments scientists will be able to gain new insights into the structure of matter and the evolution of the universe from the Big Bang to the present. The existing GSI linac and heavyion synchrotron, UNILAC and SIS18 will become part of FAIR and will serve as first acceleration stage. The construction of the tunnels and buildings including the technical building infrastructure for the first project stage, including the SIS100 synchrotron and the Super-FRS (SFRS) fragment separator will be completed at the end of the year 2025. Component manufacturing, testing and delivery for the FAIR accelerator facility is progressing. Numerous components are completed, delivered and stored ready for installation. A clear plan is in place to address the replacement of the Russian in-kind contributions following the international sanctions due to the Ukraine war. Installation of accelerator components in the buildings will start at the beginning of the year 2024. Recent highlights are, for example, the progressing SIS100 string test and the successful SFRS magnet tests at CERN. A multi-stage strategy towards commissioning is under development aiming at the FAIR startup in the year 2028 with early science.

Funding Agency

Footnotes

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Session Classification: MC07.3 - Accelerator Technology and Sustainability (Invited)