

Plenary Talk

PV IX Wed 9:00 AudiMax

Status and perspectives for science at FAIR (Facility for Antiproton and Ion Research) — •THOMAS NILSSON — GSI Helmholtzzentrum für Schwerionenforschung GmbH, Darmstadt, Germany

The international FAIR project is currently rapidly developing from the construction phase towards the delivery of cutting-edge science. The installations within the scope of the FAIR2028 stage will soon serve a large international community in nuclear, hadron, atomic and plasma physics, as well as material science and biophysics, offering new, world-unique opportunities. With our accelerators and lasers, we

will recreate and study some of the most extreme conditions found in Nature - the Universe in the lab.

The scientific groundwork has been laid through the intermediate FAIR Phase-0 programme at the existing GSI infrastructure, where new and upgraded instrumentation and beams for FAIR have been utilized for science. Thus, the international collaborations are poised for the imminent exploitation of the new facility.

The status of the FAIR project will be reported, focusing on the path towards and beyond the first scientific experiments, underpinned by selected results from the FAIR Phase-0 programme. Furthermore, an outlook on the next phases of science at FAIR will be presented.