

FAIR for Extreme State of Matter Physics

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The Facility for Antiproton and Ion Research in Europe, FAIR, will provide worldwide unique accelerator and experimental detectors allowing for a large variety of unprecedented fore-front research in extreme state of matter physics and applied science.

This presentation outlines the results of ongoing experimental activities on heavy ion accelerator facilities, providing intense beams capable of generating extreme state of matter by isochoric energy deposition regime. Considerations are focused on new experiments by using large synchrotron rings which appear to be efficient tools for investigations into the physics of high-brightness beams generation and high energy density research.

Development of new plasma diagnostic methods for high resolution measurements of dense, non-ideal plasmas parameters is discussed.

Reference: www.fair-center.eu

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