

DIESE WOCH

PHYSIKALISCHES KOLLOQUIUM

des Fachbereichs Physik
der Johann Wolfgang Goethe-Universität Frankfurt

Mittwoch, den 05.02.2014, 16 Uhr c.t.
Großer Hörsaal, Raum _0.111,
Max-von-Laue-Str. 1

Paul Neumayer

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*„ Studying matter at astrophysical conditions
in the laboratory “*

Matter at extreme pressures and densities is prevalent in the interior of compact astrophysical objects, such as giant planets. The theoretical description of matter at these high energy density (HED) conditions poses a great challenge and highly computing intensive calculations are employed to predict material properties crucial to modelling planetary structure and evolution. With the availability of powerful drivers, such as large laser facilities or intense heavy ion beams, matter at HED conditions can be produced and studied in the laboratory, allowing experimental tests of dense matter modelling.

This talk will give an introduction into the field of HED science and show selected recent as well as planned experiments. A particular focus is given to advanced x-ray diagnostic techniques which are being developed at GSI for future experiments at the FAIR facility.

Die Dozierenden der Physik

Kolloquium