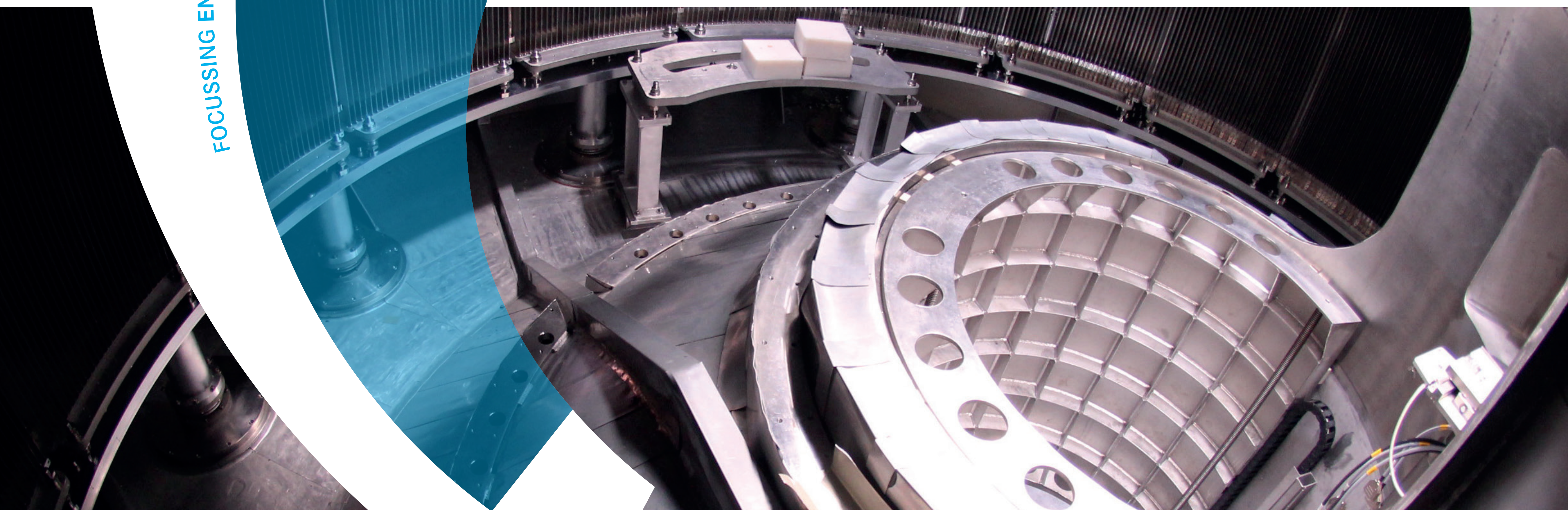


In cooperation with University of Tartu and University of Potsdam

Block Lecture Course, Faculty of Mathematics and Sciences,
Master Physics Modul 741A, University of Potsdam



NEUTRON SCATTERING APPLICATIONS TO HYDROGEN STORAGE MATERIALS

7th - 17th of August 2017 at Helmholtz-Zentrum Berlin
Hahn-Meitner Platz 1, 14109 Berlin, Germany

SCOPE

Energy research is an important scientific area today and hydrogen is one of the most promising sources of energy due to its highest energy density by weight. The efficient hydrogen storage depends on development of the new materials. Neutron scattering and -diffraction are powerful, non-destructive tool for the analysis of structure and dynamics in matter in a broad space and time domain. High sensitivity to hydrogen makes neutron scattering techniques ideally suitable to study the process in hydrogen storage systems. The goal of this school is to introduce participants to basics of neutron scattering techniques and show how these techniques can be applied for exploration of hydrogen storage materials.

We kindly invite you to the upcoming Neutron School “Neutron Scattering Applications to Hydrogen Storage Materials 2017”. The school is organized jointly by University of Potsdam, Germany and University of Tartu, Estonia. It will be held from 7th - 17th of August 2017 at the Helmholtz-Zentrum Berlin (HZB), Germany.

The lectures and practical exercises will give basics to:

- Hydrogen economy and hydrogen storage technologies
- Fundamentals of the gas storage
- Basics of neutron scattering and in particular in-situ neutron diffraction and neutron spectroscopy
- Characterizing sorption behavior of porous materials by ab-initio and crystal structure refinements
- Investigation of diffusion and mass transfer properties

LECTURES AND PRACTICAL EXERCISES

- M. Russina (HZB)
- H. Kurig (University of Tartu, Estonia)
- D. Többens (HZB)
- D. Wallacher (HZB)
- V. Grzimek (HZB)
- M-C. Schlegel (BAM, Berlin)

TARGET GROUP

The course is primarily aimed at early stage researchers with basics knowledge in Thermodynamics and Solid State Physics. It is part of the curriculum of the Faculty of Mathematics and Sciences at the University of Potsdam, Modul 741A and is credited with 4 credit points.

FREE REGISTRATION

Please use this link to register for the Hydrogen School:

hz-b.de/hydrogenschool

The register date is 16th of June 2017.