



## **DRESDYN: A large scale liquid sodium facility for experiments on dynamo action and related magnetic instabilities**

A. Giesecke, G. Gerbeth, Th. Gundrum, O. Kirillov, M. Seilmayer, and F. Stefani

Helmholtz-Zentrum Dresden Rossendorf, Magnetohydrodynamics, Dresden, Germany (a.giesecke@hzdr.de)

The DREsden Sodium facility for DYNamo and thermohydraulic studies (DRESDYN), which is presently in the design phase, will comprise a number of large scale liquid sodium experiments devoted to problems of geo- and astrophysical magnetohydrodynamics. A homogeneous dynamo, driven exclusively by precession, will represent the most ambitious compound of DRESDYN. Another experiment, a sodium filled Taylor-Couette cell, will allow the combined investigation of various versions of the magnetorotational instability and of the Tayler instability. For both experiments, recent results of preparatory studies are presented, and the scientific prospects for the final set-ups are delineated.