EINLADUNG
zu einem Vortrag im Rahmen des
Kolloquiums Thermo- und Fluiddynamik

Datum: Mittwoch, 18. April 2012
Zeit: 16:15 Uhr
Ort: Maschinenlaboratorium ETH Zürich
Hörsaal ML H 44
Referent: Prof. Andreas Haselbacher
Institute of Energy Technology, ETH Zurich/University of Florida

Thema: Advances in the Modeling of Compressible Multiphase Flows

Multiphase flows occur in many engineering and geophysical applications. Some multiphase flows, such as those produced by volcanic eruptions and the detonation of multiphase explosives, are strongly influenced by compressibility effects. In most attempts at simulating such flows, it is assumed that compressibility effects are either negligible or models are used that cannot be justified in a rigorous manner.

In this presentation, recent work is presented in which attempts have been made to put the modeling of compressible multiphase flows on a solid theoretical foundation. As part of this work, we have derived equations governing the unsteady motion of an isolated particle in a uniform or non-uniform flow. These equations of motion may be viewed as extensions of the Basset-Boussinesq-Oseen and Maxey-Riley-Gatignol equations. In addition to outlining the derivation of the extended equations, the presentation will include comparisons with other theoretical results and experimental data.

Host: Prof. A. Steinfeld

Gäste sind willkommen!

Weitere Informationen: www.ifd.mavt.ethz.ch/news/KTF.scheduled