Johann Radon Institute for Computational and Applied Mathematics
der
Österreichischen Akademie der Wissenschaften

Group Seminar

Group: Computational Methods for Direct Field Problems

Abner Salgado
Texas A&M University

"A fractional step method for incompressible flows with variable density, based on a pressure Poisson equation"

A new fractional time technique for solving incompressible flows with variable density is proposed. The main feature of this method is that, as opposed to other known algorithms, the pressure is computed by solving a Poisson equation, which greatly reduces the computational cost. The method is shown to be stable and it is numerically illustrated.

Wednesday, July 16, 2008, 13:00
Johannes Kepler Universität, HF136