

NUMERICAL ANALYSIS AND SCIENTIFIC COMPUTING
SEMINAR

On Subgrid Pressure Modeling in Incompressible CFD

Maxim Olshanskii
Moscow State University

Abstract: In the talk we discuss a variational multiscale approach for the pressure subgrid modeling in the Galerkin method for incompressible Navier-Stokes equations. We relate the approach with a stabilization procedure of least-square type known as grad-div stabilization and consider the search of optimal stabilization parameters as a trade-off between mass and energy balance in the discrete system. Application to numerical simulation of laminar and turbulent flows is studied

Tuesday, October 13, 2009, 4:00 pm
Mathematics and Science Center: W306

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