

Stabilization of High-Order Incompressible Flow Solvers at High Reynolds Number

George Karniadakis

Brown University

Abstract: In this talk we will present three different strategies in dealing with loss of monotonicity in marginally resolved or unresolved simulations of incompressible flows at high Reynolds number. They are based on (1) discontinuous Galerkin methods, (2) dealiasing on non-uniform grids, and (3) incorporation of spectral vanishing viscosity.