universität**bonn**

Minisymposium 2 - Numerics for PDE-Constrained Control Problems

Reduced Order Control Based on Approximate Inertial Manifolds

KARL KUNISCH (UNIVERSITÄT GRAZ)

A reduced-order method for optimal control problems in infinite-dimensional based on approximate inertial manifolds is developed. Convergence of the cost, optimal controls and optimal states of the finite dimensional, reduced-order, optimal control problems to the original optimal control problem is analyzed. Special attention is given to the particular case when the dynamics are described by the Navier Stokes equations in dimension two. – This is joint work with Prof. Ito, North Carolina State University.