UNIVERSITÄT SALZBURG

SALZBURG MATHEMATICS COLLOQUIUM
Summer 2019

Roland Becker (Pau)

„Finite element methods for parameter identification problems"
May 16, 2019

Abstract:
We consider finite element methods for parameter identification problems arising in continuum mechanics, focussing on a finite number of parameters and observations. Such problems arise in a variety of applications, such as the determination of the Lamé parameters in linear elasticity or certain diffusion coefficients in tomography. Standard energy-based error estimators for finite element discretization of optimal control problems only lead to sub-optimal convergence rates. Exploiting the structure of the optimization problem, we present an improved error estimator which is the sum of products of certain energy errors.

Thursday, **15:00-15:45**
Hörsaal 414, 1. Stock