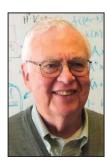


Simulation, Optimization, and Identification in Solid Mechanics

August 4—August 15, 2014 Linz, Austria



The fifth Gene Golub SIAM Summer School, with a focus on solid mechanics, will take place in the Johann Radon Institute for Computational and Applied Mathematics (RICAM), located at the Johannes Kepler University Linz, Austria.

This summer school will foster advanced knowledge for the participating graduate students in several areas related to simulated materials in solid mechanics. Within this broad field the summer school will concentrate on four key issues, namely

- 1. Identification of material parameters from measurements
- 2. Material- and topology-optimization
- 3. Optimization subject to variational inequalities
- 4. Adaptive discretization

The first two topics will provide a platform for in-depth discussions on the relation of the areas of identification and optimization. The third topic will augment the first two, by providing insight into the behavior of those problems for which variational inequalities are required for the modeling of the materials. Finally, the summer school will look at adaptive discretization of optimization problems for the purpose of reducing the computational costs involved in the solution of the problems encountered in the first three key topics.

The primary lecturers for these courses will be:

- Roland Herzog, TU Chemnitz, Germany
- Esther Klann, JKU Linz, Austria
- Michael Stingl, FAU Erlangen-Nürnberg, Germany
- Winnifried Wollner, University of Hamburg, Germany

Applicants selected to participate pay no registration. Funding for local accommodations and meal expenses will be available for all participants. Limited travel funds are also available.

Application deadline: February 1, 2014

For more detail on the courses and on how to apply, go to: http://www.math.uni-hamburg.de/g2s3

www.siam.org/students/g2s3/

Sponsored by SIAM through an endowment from the estate of Gene Golub. For more information about prior summer schools go to www.siam.org/students/g2s3/

