

## Hauptvorträge

**Alexander K. Belyaev** (RAS St. Petersburg)  
High-frequency dynamics of structures

**Bjorn Engquist** (U Texas at Austin)  
Current trends in multiscale modeling

**Adriana Garroni** (U Rom)  
Multiscale variational analysis of dislocations

**Michael Hinze** (U Hamburg)  
PDE constrained optimization in engineering applications

**Ray W. Ogden** (U Aberdeen)  
Structurally-based analysis of the mechanical properties of soft biological tissues

**Daya Reddy** (U Cape Town)  
Some variational and computational aspects of problems for gradient plasticity

**Joachim Schöberl** (TU Wien)  
Hybrid discontinuous Galerkin methods for the Navier-Stokes equations

**Jörg Schumacher** (TU Ilmenau)  
Why can't we understand clouds without turbulence?

**Bob Svendsen** (RWTH Aachen)  
Thermodynamic formulation of models for microstructural evolution and their application to the simulation of technological systems

**Wolfgang Wall** (TU München)  
Multifield and multiscale problems and methods in computational biomechanics

## Special Lectures

**Prandtl Lecture**                      **Norbert Peters** (RWTH Aachen)  
Turbulence statistics along gradient trajectories

**Public Lecture**                      **Hans Sünkel** (TU Graz)  
Die Bestimmung des Erdschwerefeldes mittels Satelliten – eine mathematisch-numerische Herausforderung (in German)