

Plenary Lectures - Mathematics

Volker Mehrmann (Berlin, Germany)	Hierarchical energy based modeling and numerical simulation for coupled multi-physics and multi-scale systems
Tinsley Oden (Austin, USA)	Selection and adaptation of computational models in the presence of uncertainty: predictive models of tumor growth and random heterogeneous materials
Mark Peletier (Eindhoven, Netherlands)	Onsager reciprocity, gradient flows, and large deviations
Joachim Weickert (Saarbrücken, Germany)	Image compression with partial differential equations

Plenary Lectures - Mechanics

Peter Eberhard (Stuttgart, Germany)	Particles - an option for unusual computations
Alexander Lion (Munich, Germany)	On the continuum mechanical modelling of polymerphysical phenomena
Laura de Lorenzis (Braunschweig, Germany)	Phase-field modeling and computation of fracture and fatigue
Martin Oberlack (Darmstadt, Germany)	Why do turbulent flows have an increases state of symmetry? Physical meaning and its implications

Special Lectures

Ludwig Prandtl Memorial Lecture

Vassilios Theofilis (Liverpool, UK)

Global linear stability theory in aerospace applications

Public Lectures - Sounds of the future

Main Lecture

Dipl.-Physik-Ing. **Martin Schleske**, Master violin maker (Landsberg am Lech, DE)

The tonal colours of realisations - On the use of scientific tools in today's violin making

Short Lectures

Dr.-Ing. **Renzo Vitale**, Composer, acoustic engineer, sound designer at BMW (Munich, DE)

Composing soundscapes of tomorrow

Dipl.-Ing. **Jürgen Reinhold**, acoustic engineer at Müller-BBM (Munich, DE)

Challenges in the acoustical design of halls for music