

### **Plenary Lectures - Mathematics**

- Moritz Diehl (Freiburg, Germany)
   Nonlinear optimal control for airborne wind energy systems
- 2 Giovanni Galdi (Pittsburgh, Pennsylvania) Liquid-solid interactions: some new results and open questions
- 3 Daniel Kressner (Lausanne, Switzerland) Low rank techniques for high-dimensional problems in engineering and data-analysis
- 4 Enrique Zuazua (Bilbao, Spain)
  Optimal placement of sensors and actuators for waves in homogeneous and heterogeneous media

## **Plenary Lectures - Mechanics**

- Nikolaus Adams (München, Germany)
   Particle methods for complex flows of complex fluids
- 2 Ferdinando Auricchio (Pavia, Italy) Shape memory alloys: from recent modeling proposals to cardiovascular device simulations
- Thomas Böhlke (Karlsruhe, Germany)
  Micromechanics based modelling of applied materials
- 4 Stanislaw Stupkiewicz (Warsaw, Poland) Interfacial energy and size effects in evolving martensitic microstructures

# **Special Lectures**

#### **Ludwig Prandtl Memorial Lecture**

Keith Moffatt (Cambridge, UK)

Discontinuities and topological jumps in slowly evolving vortical flows

#### **Public Lecture**

Francesco D'Andria (Lecce, Italy)

Do the Gates to the Hell really exist?