"Numerical simulation of coupled fields" organized by Manfred Kaltenbacher

## Miniworkshop (Lecture Notes)

Miniworkshop "Direct and inverse problems in piezoelectricity" organized by Barbara Kaltenbacher and Manfred Kaltenbacher,

October 6 - 7, 2005, Begin: 9:00, Room: HF 136

## Lecture Series I: FLUID-STRUCTURE-ACOUSTICS

• Computational aeroacoustics

October 10, 2005, Time: 15:30 - 17:00, Room: HF 9901

• Fluid/solid interaction coupled to acoustics

October 13, 2005, Time: 15:30 - 17:00, Room: HF 9901

• Applications (sound generation by turbulent flow, human voice generation)

October 19, 2005, Time: 15:30 - 17:00, Room: HF 9901

#### **Lecture Series II: PIEZOELECTRICS**

• Piezoelectric equations

October 20, 2005, Time: 15:30 - 17:00, Room: HF 9901

Nonlinearities

October 24, 2005, Time: 15:30 - 17:00, Room: HF 9901

• Applications (stack actuator, ultrasound cleaning, ultrasound therapy)

October 28, 2005, Time: 10:15 - 11:45, Room: HF 9901

## **Lecture Series III: MAGNETO-MECHANICS**

• 3D magnetic field computation

November 15, 2005, Time: 10:15 - 11:45, Room: HF 9901

• Magnetic force, moving body problem

November 17, 2005, Time: 10:15 - 11:45, Room: HF 9901

• Applications (magnetic valve, electric transformer, electromagnetic acoustic transducer)

November 22, 2005, Time: 10:15 - 11:45, Room: HF 9901

# Lecture Series IV: MHD and POROUS MEDIA FLOWS held by Marco Discacciati

• Magneto-hydrodynamic problems

November 30, 2005, Time: 13:45 - 15:15, Room: HF 9901

• Magneto-hydrodynamic problems

December 01, 2005, Time: 10:15 - 11:45, Room: HF 9901

• Filtration of fluids through porous media

December 07, 2005, Time: 13:45 - 15:15, Room: HF 9901

Download the reference list (PDF)