"Inverse problems and model identification in mechanics" organized by Barbara Kaltenbacher

Miniworkshop

Miniworkshop "Direct and inverse problems in piezoelectricity" organized by Barbara Kaltenbacher and Manfred Kaltenbacher,
October 6 - 7, 2005, Begin: 9:00, Room: HF 136

Lectures "Parameter Identification in Partial Differential Equations" held by Barbara Kaltenbacher

Download lecture notes (PDF)

1. Motivation, examples, applications
   October 5, 2005, Time: 10:15 - 11:45, Room: HF 9901
2. The electrical impedance tomography problem I
   October 10, 2005, Time: 13:45 - 15:15, Room: HF 9901
3. The electrical impedance tomography problem II
   October 12, 2005, Time: 10:15 - 11:45, Room: HF 9901
4. The electrical impedance tomography problem III
   October 17, 2005, Time: 10:15 - 11:45, Room: HF 9901
5. An inverse source problem for the heat equation I
   October 19, 2005, Time: 10:15 - 11:45, Room: HF 9901
6. An inverse source problem for the heat equation II
   October 24, 2005, Time: 10:15 - 11:45, Room: HF 9901
7. An inverse source problem for the heat equation III
   November 14, 2005, Time: 10:15 - 11:45, Room: HF 9901
8. Determination of a coefficient in a hyperbolic PDE
   November 16, 2005, Time: 10:15 - 11:45, Room: HF 9901
9. An inverse scattering problem I
   November 21, 2005, Time: 10:15 - 11:45, Room: HF 9901
10. An inverse scattering problem II
    November 23, 2005, Time: 10:15 - 11:45, Room: HF 9901
11. An inverse scattering problem III
    November 28, 2005, Time: 10:15 - 11:45, Room: HF 9901
12. Numerical solution methods I: Tikhonov regularization
    November 30, 2005, Time: 10:15 - 11:45, Room: HF 9901
13. Numerical solution methods II: Iterative methods
    December 5, 2005, Time: 10:15 - 11:45, Room: HF 9901
14. Numerical solution methods III: the factorization method
    December 7, 2005, Time: 10:15 - 11:45, Room: HF 9901

Tutorials "Parameter Identification in Partial Differential Equations" held by Tom Lahmer

Download: SobolevSpaceTheory.pdf

1. Tutorial 1
   October 5, 2005, Time: 15:30 - 16:15, Room: HF 136
2. Tutorial 2
   October 10, 2005, Time: 15:30 - 16:15, Room: KHG 1
3. Tutorial 3

October 12, 2005, Time: 15:30 - 16:15, Room: HF 9901
4. Tutorial 4
   October 17, 2005, Time: 15:30 - 16:15, Room: HF 136
5. Tutorial 5
   October 19, 2005, Time: 15:30 - 16:15, Room: HF 136
6. Tutorial 6
   October 24, 2005, Time: 15:30 - 16:15, Room: HF 136
   Download: heatEqExample1_2.pdf
7. Tutorial 7: Inverse Problems in Partial Differential Equations
   October 28, 2005, Time: 12:00 - 13:00, Room: HF 9903
   Download: illPosedLinearOperatorEquations.pdf
8. Tutorial 8
   November 14, 2005, Time: 15:30 - 16:15, Room: HF 136
9. Tutorial 9
   November 16, 2005, Time: 15:30 - 16:15, Room: HF 136
10. Tutorial 10
    November 21, 2005, Time: 15:30 - 16:15, Room: HF 9901
11. Tutorial 11
    November 23, 2005, Time: 15:30 - 16:15, Room: HF 9901
12. Tutorial 12
    November 28, 2005, Time: 15:30 - 16:15, Room: HF 136
13. Tutorial 13
    November 30, 2005, Time: 15:30 - 16:15, Room: HF 136
14. Tutorial 14
    December 5, 2005, Time: 15:30 - 16:15, Room: HF 136
15. Tutorial 15
    December 7, 2005, Time: 15:30 - 16:15, Room: HF 9901