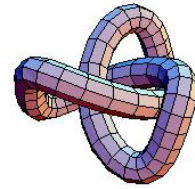




Chemnitz University of Technology
Department of Mathematics
Analysis – Inverse Problems



Chemnitz Symposium on Inverse Problems 2008

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Conference Program

Location: Chemnitz University of Technology
Straße der Nationen 62 (Böttcher-Bau)
Conference hall „Altes Heizhaus“
09111 Chemnitz, Germany

Dates: September 25 - 26, 2008

Conference Contacts: Prof. Dr. Bernd Hofmann
Matthias Schieck
Department of Mathematics
Chemnitz University of Technology
Reichenhainer Str. 41
09126 Chemnitz, Germany
email: ip2008@tu-chemnitz.de
www: <http://www.tu-chemnitz.de/mathematik/ip-symposium/>

Short program and overview

Day 1: Thursday, September 25, 2008		Day 2: Friday, September 26, 2008	
09.00 - 09.15	Opening	09.00 - 11.00	Session 5
09.15 - 11.20	Session 1 Jorge P. Zubelli Markus Hegland Markus Reiß		Arnd Rösch Markus Grasmair Masahiro Yamamoto
11.20 - 12.40	Lunch Break	11.00 - 11.20	Break
12.40 - 14.00	Session 2 Peter Mathé Dirk Lorenz Bernd Hofmann	11.20 - 12.10	Session 6 Ulrich Tautenhahn Matthias Schieck
14.00 - 14.20	Break	12.10 - 13.50	Lunch Break
14.20 - 16.10	Session 3 Teresa Regińska Fredri Tröltzsch Herbert Egger Torsten Hein	13.50 - 15.10	Session 7 Thorsten Raasch Kamil S. Kazimierski Sybille Handrock-Meyer
16.10 - 16.30	Break	15.10 - 15.15	Closing / Conclusions
16.30 - 18.00	Session 4 Mihaela M. Pricop Mourad Sini Nataliya Togobytska		
18.15	Come Together		

Day 1: Thursday, September 25, 2008

09.00 - 09.15 **Opening**

09.15 - 11.20 **Session 1, Chair: Ulrich Tautenhahn (Zittau, Germany)**

09.15 - 10.00 **Jorge P. Zubelli** (Rio de Janeiro, Brazil):
„Inverse Problems in Finances: A Short Survey of Calibration Methods“

10.00 - 10.40 **Markus Hegland** (Canberra, Australia):
„Generalizations of Hilbert Scales and their Source Conditions“

10.40 - 11.20 **Markus Reiß** (Heidelberg, Germany):
„Mathematical Analysis of Regularisation Methods for Instrumental Variable Models“

11.20 - 12.40 **Lunch Break**

12.40 - 14.00 **Session 2, Chair: Rudolf Gorenflo (Berlin, Germany)**

12.40 - 13.10 **Peter Mathé** (Berlin, Germany):
„Average Case Analysis of Inverse Problems“

13.10 - 13.40 **Dirk Lorenz** (Bremen, Germany):
„Convergence and Convergence Rates for Convex and Non-Convex Regularization“

13.40 - 14.00 **Bernd Hofmann** (Chemnitz, Germany):
„Chances and Limitations of the Distance Function Approach in Regularization“

14.00 - 14.20 **Break**

14.20 - 16.10 **Session 3, Chair: Lothar v. Wolfersdorf (Freiberg, Germany)**

14.20 - 14.50 **Teresa Regińska** (Warsaw, Poland):
„An Ill-Posed Boundary Value Problem for the Helmholtz Equation“

14.50 - 15.20 **Fredi Tröltzsch** (Berlin, Germany):
„Some Results on Restricted Controllability“

15.20 - 15.50 **Herbert Egger** (Aachen, Germany):
„Efficient Implementation of Nonlinear Inversion Algorithms for Electrical Capacitance Tomography“

15.50 - 16.10 **Torsten Hein** (Chemnitz, Germany):
„Regularization in Banach Spaces by Approximate Source Conditions“

16.10 - 16.30	Break
16.30 - 18.00	Session 4, Chair: Hans-Jürgen Reinhardt (Siegen, Germany)
16.30 - 17.00	Mihaela M. Pricop (Göttingen, Germany): <i>„Convergence Analysis for Nonlinear Tikhonov Regularization in Hilbert Scales with Lepskii Choice of the Regularization Parameter“</i>
17.00 - 17.30	Mourad Sini (Linz, Austria): <i>„How to Make an Obstacle More (or Less) Visible from Exterior Mea- surements“</i>
17.30 - 18.00	Nataliya Togobytska (Berlin, Germany): <i>„On the Evaluation of Dilatometer Experiments“</i>
19.00	Conference Dinner in Restaurant ‘Augustuskeller’ The restaurant ‘Augustuskeller’ is situated at Augustusburg castle, 15km east of the centre of Chemnitz. Bus transfer is organized by the conference. Departure is 18.15 from the conference building.

Day 2: Friday, September 26, 2008

09.00 - 11.00 **Session 5, Chair: Jorge P. Zubelli (Rio de Janeiro, Brazil)**

09.00 - 09.40 **Arnd Rösch** (Duisburg, Germany):
„Similarities and Differences Between Inverse Problems and Optimal Control“

09.40 - 10.20 **Markus Grasmair** (Innsbruck, Austria):
„Sparse Regularization Methods with l^q Penalization“

10.20 - 11.00 **Masahiro Yamamoto** (Tokyo, Japan):
„Regularity of the Tikhonov Regularized Solutions and the Exact Solution“

11.00 - 11.20 **Break**

11.20 - 12.20 **Session 6, Chair: Peter Mathé (Berlin, Germany)**

11.20 - 11.50 **Ulrich Tautenhahn** (Zittau, Germany):
„Stability and Regularization for a Cauchy Problem for the Helmholtz Equation“

11.50 - 12.10 **Matthias Schieck** (Chemnitz, Germany):
„Error Estimates with the Modulus of Continuity of the Inverse Operator in Linear Ill-Posed Problems“

12.10 - 13.50 **Lunch Break**

13.50 - 15.10 **Session 7, Chair: Fredi Tröltzsch (Berlin, Germany)**

13.50 - 14.20 **Thorsten Raasch** (Marburg, Germany):
„Adaptive Wavelet Discretization of Linear Inverse PDE Problems with Sparsity Constraints“

14.20 - 14.50 **Kamil S. Kazimierski** (Bremen, Germany):
„Minimization of Tikhonov Functionals in Banach Spaces“

14.50 - 15.10 **Sybille Handrock-Meyer** (Chemnitz, Germany):
„Inverse Problems for the Grad-Schafranov Equation“

15.10 - 15.15 **Closing and Conclusions**
