

## Contents

IPNet Digest	Volume 15, Number 01	February 13, 2008 .....	2
IPNet Digest	Volume 15, Number 02	April 11, 2008.....	17
IPNet Digest	Volume 15, Number 03	June 3, 2008 .....	32
IPNet Digest	Volume 15, Number 04	December 26, 2008 .....	42

# IPNet Digest Volume 15, Number 01 February 13, 2008

## Today's Editors:

Patricia K. Lamm, Michigan State University  
Zhewei Dai, Alma College

## Today's Topics:

CFP Extended: SIAM Conference on Imaging Science  
Call for Papers: Heat Transfer 2008  
Int'l Conference on Applied Mathematics and Approximation Theory  
Gene Golub Around the World Day: in Leuven  
Conference in honor of Richard Varga  
Imaging Group Positions in Austria  
PhD-Positions at J. Radon Inst. for Computational & Applied Math  
Inverse Problems' Special Section on Imaging Now Online  
Table of Contents: Inverse Problems in Science and Engineering  
Table of Contents: Journal of Inverse and Ill-posed Problems  
Table of Contents: Inverse Problems  
Table of Contents: Mathematics of Control, Signals, Systems  
Table of Contents: Linear and Multilinear Algebra  
Table of Contents Online: J. Applied Functional Analysis  
Table of Contents Online: J. Concrete & Applicable Mathematics

## Submissions for IPNet Digest:

Mail to [ipnet-digest@math.msu.edu](mailto:ipnet-digest@math.msu.edu)

## Information about IPNet:

<http://www.math.msu.edu/ipnet>

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Subject: SIAM Conf. on Imaging Science- CFP Deadlines EXTENDED  
From: Kirsten Wilden <[Wilden@siam.org](mailto:Wilden@siam.org)>  
Date: Fri, 4 Jan 2008

## Conference Name:

SIAM Conference on Imaging Science (IS08), being held jointly with the  
2008 SIAM Annual Meeting

## Location:

Town & Country Resort and Convention Center, San Diego, California

## Dates:

July 7-9, 2008

## Invited Speakers:

### Joint Plenary Speaker

Jean-Michel Morel, ENS Cachan, France

### Invited Topical Speakers

John Etgen, BP America

Jeffrey Fessler, University of Michigan, Ann Arbor

Mila Nikolova, Centre de Mathématiques et de Leurs Applications, France

Lenny Rudin, Cognitech Inc.

Lars Ulander, Swedish Defense Research Agency, Sweden

Andrew Zisserman, University of Oxford, United Kingdom

The Call for Presentations for this conference is available at:  
<http://www.siam.org/meetings/is08/>

**\*\*DEADLINES EXTENDED\*\***

February 11, 2008: Minisymposium proposals  
February 11, 2008: Abstracts for contributed and minisymposium speakers

For additional information, contact SIAM Conference Department at  
[meetings@siam.org](mailto:meetings@siam.org).

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Subject: Heat Transfer 2008: Call for Papers from WIT  
From: Rachel Swinburn <[rswinburn@wessex.ac.uk](mailto:rswinburn@wessex.ac.uk)>  
Date: Mon, 14 Jan 2008

Heat Transfer 2008

Tenth International Conference on Advanced Computational Methods and  
Experimental Measurements in Heat Transfer  
9 - 11 July 2008, Maribor, Slovenia

Organised by: Wessex Institute of Technology, UK and Lund University  
of Technology, Sweden  
Sponsored by: The Development in Heat Transfer Book Series

View the conference website, which has full details about the conference  
objectives, topics and submission requirements at:  
<http://www.wessex.ac.uk/heat2008rem3a.html>

Conference Topics

- Natural and forced convection
- Advances in computational methods
- Heat and mass transfer
- Modelling and experiments
- Heat exchanges and equipment
- Radiation heat transfer
- Energy systems
- Micro and nano scale heat and mass transfer
- Thermal material characterisation
- Renewable and sustainable energy
- Energy balance and conservation

Full conference information is available at:  
<http://www.wessex.ac.uk/heat2008rem3a.html>  
or submit an abstract directly by sending an email to:  
[rswinburn@wessex.ac.uk](mailto:rswinburn@wessex.ac.uk)

Conference Secretariat

Rachel Swinburn, Conference Manager, Heat Transfer 2008  
Wessex Institute of Technology, Ashurst Lodge, Ashurst  
Southampton, SO40 7AA. Telephone: 44 (0) 238 029 3223  
Fax: 44 (0) 238 029 2853. Email: [rswinburn@wessex.ac.uk](mailto:rswinburn@wessex.ac.uk)

Submit an abstract via the conference website or contact the  
Conference Secretariat above:  
<http://www.wessex.ac.uk/heat2008rem3a.html>

Please forward this information to anyone you feel may be interested or

would benefit from this information. They can subscribe by e-mailing enquiries@wessex.ac.uk and putting SUBSCRIBE- Heat Transfer 2008 in the subject field.

-----  
Subject: AMAT08  
From: "George A Anastassiou (ganastss)" <ganastss@memphis.edu>  
Date: Thu, 17 Jan 2008

CONFERENCE ANNOUNCEMENT:

"International Conference on Applied Mathematics and Approximation Theory

2008", October 11-13,2008, University of Memphis, Memphis, TN, USA.

Honoring 80th Birthday of P.L.Butzer (AMAT08).

Plenary Speakers:C.Bardaro, J.Bona, B.Berndt, F.Deutsch, K.Diethelm, S.Dragomir, J.Goldstein, M.Ismail, M.J.Lai, H.Mhaskar, J.Prestin, S.Samko, R.Stens, A.Zayed.

Organizer:George Anastassiou, <http://www.msci.memphis.edu/AMAT2008/>

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Subject: Gene Golub Around the World Day - Leuven, Feb. 29, 2008  
From: Ida Tassens <ida.tassens@esat.kuleuven.be>  
Date: Fri, 25 Jan 2008 05:26:25 -0500

ESAT/SCD (EE Dept, K.U.Leuven) and CESAME (Universite Catholique de Louvain) organize an event in memory of Gene Golub in Leuven. The event is part of the Gene Golub Around the World Day (29th February, Gene Golub's birthday - see <http://www.cs.nyu.edu/overton/genearoundtheworld/>).

More information: <http://www.kuleuven.be/golub/> (the website will be updated as soon as all information is available).

A tentative list of speakers:

- Raf Vande Bril, K.U.Leuven, Dept. of Computer Science
- Bo Kågström, Umea Univ., Dept. Computing Science
- Gregory Boutry (Univ. Catholique de Lille, Faculte Libre des Sciences et Technologies)
- Martin H. Gutknecht, ETH Zurich, Applied Mathematics
- Claude Brezinski, Univ. des Sciences et Technologies de Lille
- Alistair Watson, Univ. Dundee, Div. Mathematics
- Annie Cuyt, Univ. Antwerpen, Dept. Mathematics and Computer Science
- Diana Sima, K.U.Leuven, EE Dept. (ESAT/SCD)
- Lieven De Lathauwer, EE Dept. (ESAT/SCD)
- Petter Bjørstad, University of Bergen, Applied & Computational Mathematics Group. (not yet confirmed)
- Paul Van Dooren, UCL, CESAME
- Sabine Van Huffel, K.U.Leuven, EE Dept. (ESAT/SCD)
- Bart De Moor, K.U.Leuven, EE Dept. (ESAT/SCD)

The talks will have the right mix of technical contribution and fond memories of Gene Golub.

The event will be followed by a dinner in a Chinese restaurant.

Registration, coffee breaks and sandwich lunch are free of charge. The dinner will cost 40 euro. Please register on the website (<http://www.kuleuven.be/golub/> ) before Feb. 15, and indicate if you will attend the dinner (please fill out the Dinner Registration Form).

All practical details can be found on the website (payment details, hotel information, final program, ...): <http://www.kuleuven.be/golub/> .

We hope to welcome you at this event,

Bart De Moor, Paul Van Dooren, Sabine Van Huffel  
Disclaimer: [http://www.kuleuven.be/cwis/email\\_disclaimer.htm](http://www.kuleuven.be/cwis/email_disclaimer.htm)

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Subject: Conference in honor of Richard Varga  
From: Lothar Reichel <[reichel@math.kent.edu](mailto:reichel@math.kent.edu)>  
Date: Wed, 13 Feb 2008

CONFERENCE IN HONOR OF RICHARD S. VARGA

We are planning a conference Friday and Saturday, November 17-18, 2008, at Kent State University, Kent, Ohio, on the occasion of Richard Varga's 80th birthday. There will be personal reminiscence as well as technical talks in the many areas of mathematics where Richard Varga has made profound contributions, including

R-RATIONAL APPROXIMATION  
I-INCOMPLETE POLYNOMIALS  
C-CYCLIC MATRICES  
H-H-MATRICES  
A-ALTERNATING DIRECTION ITERATION  
R-RIEMANN HYPOTHESIS  
D-DIFFERENTIAL EQUATIONS  
  
S-SPLINES  
  
V-VERTICES OF GRAPHS  
A-ANALYTIC FUNCTIONS  
R-RATE OF CONVERGENCE  
G-GERSHGORIN DISKS  
A-ASYMPTOTICS FOR ZEROS OF PARTIAL SUMS  
  
F-FACTORIZATION OF MATRICES  
E-ENTIRE FUNCTIONS  
S-SEMI-ITERATIVE METHODS  
T-CHEBYSHEFF APPROXIMATION

The following friends and colleagues of Richard Varga already have expressed interest in participating:

Greg Ammar, John Buoni, Amos Carpenter, Lila Cvetkovic, Stephen Demko, Vladimir Druskin, Michael Eiermann, Roland Freund, Walter Gautschi, Warren Hickman, Lala Krishna, Andras Kroo, Xiezhang Li, Paco

Marcellan, Volker Mehrmann, Paul Nevai, Timothy Norfolk, Peter Pallfy, Bob Plemmons, Igor Pritsker, Q. I. Rahman, Ed Saff, Hans Schneider, Fiorella Sgallari, Frank Stenger, Jozsef Szabados, Daniel Szyld, Heinrich Voss, and Olof Widlund

Please send e-mail to Lothar Reichel (reichel@math.kent.edu) if you are interested in joining. There is a conference web site with further information, which will be updated regularly, at <http://www.math.kent.edu/~li/RSV80>

On behalf of the organizing committee,  
Lothar Reichel

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Subject: Imaging Group Positions in Austria  
From: Otmar Scherzer <Otmar.Scherzer@uibk.ac.at>  
Date: Mon, 7 Jan 2008

Doctorate Position f/m at the Infmath Imaging Group in Innsbruck at the Department of Computer Science at the University of Innsbruck, Austria

The "Infmath Imaging Group" is searching a Doctorate Candidate with a strong interest in experimental physics for photo- and thermoacoustic imaging. The research is funded by the FWF (Austrian Science Fund) in the framework of an national research network on Photo- and Thermoacoustic Imaging. The research is conducted together with the Experimental Physics groups in Graz (Guenther Paltauf), Linz (Peter Burgholzer) and the Department of Radiology at Medical University Innsbruck (Werner Jaschke).

A master in physics or a closely related field is required. The working language is English. The initial contract is for one year with possible renewal up to three years. For more information contact O. Scherzer at: [otmar.scherzer@uibk.ac.at](mailto:otmar.scherzer@uibk.ac.at).

The working place for this research position is both at the University Innsbruck and Medical University Innsbruck, where the experimental lab is located.

Starting date of the project is April, 1st, 2008.

The salary is according to the FWF Personalkostensaeetze DoktorandIn Neu: [http://www.fwf.ac.at/de/projects/personalkostensaeetze\\_2007.html](http://www.fwf.ac.at/de/projects/personalkostensaeetze_2007.html)

Applications with personal and scientific data, copies of relevant documents and a statement about scientific interests and achievements should be sent, preferably by email, to [otmar.scherzer@uibk.ac.at](mailto:otmar.scherzer@uibk.ac.at).

Postal address:  
Prof. Dr. Otmar Scherzer  
Department of Computer Science,  
University of Innsbruck,  
Techniker Str. 21a  
A-6020 Innsbruck, Austria.

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Postdoc Position f/m at the Imaging Group

At the Johann Radon Institute for Computational and Applied Mathematics (RICAM) of the Austrian Academy of Sciences, Linz, Austria

The "Imaging Group" is searching a PostDoc with a strong interest and background in either thermoacoustic imaging or partial differential equations/variational methods for imaging. The research focus will be adjusted according to the interests of the successful candidate.

A doctorate in mathematics or a closely related field is required. The working language is English. The initial contract can be for up to three years, a renewal for three more years is possible depending on achievements. For more information contact O. Scherzer at: [otmar.scherzer@uibk.ac.at](mailto:otmar.scherzer@uibk.ac.at) .

RICAM is a research institute which went into operation on January 1, 2003, and is building up to a total of 30 PostDoc positions in six areas: Computational Methods for Direct Field Problems, Inverse Problems, Optimization and Optimal Control, Symbolic Computing, Analysis of Partial Differential Equations, Mathematical Finance and Imaging.

The institute is housed on the campus of the Johannes Kepler University in Linz, a town of about 240.000 on the Danube, very close to the Austrian Alps, and half-way between Vienna and Salzburg. Further information is available under: <http://www.ricam.oeaw.ac.at>.

Applications with personal and scientific data, copies of relevant documents and a statement about scientific interests and achievements should be sent, preferably by email, to [otmar.scherzer@uibk.ac.at](mailto:otmar.scherzer@uibk.ac.at).

Postal address:  
Prof. Dr. Otmar Scherzer  
Department of Computer Science,  
University of Innsbruck,  
Techniker Str. 21a  
A-6020 Innsbruck, Austria.

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Doctorate Position f/m at the Imaging Group

At the Johann Radon Institute for Computational and Applied Mathematics (RICAM) of the Austrian Academy of Sciences, Linz, Austria

The "Imaging Group" is searching a Doctorate Candidate with a strong interest in tomographic imaging (in particular thermoacoustic imaging). The research is funded by the FWF (Austrian Science Fund) in the framework of an national research network on Photo- and Thermoacoustic Imaging.

A master in mathematics or a closely related field is required. The working language is English. The initial contract is for one year with possible renewal up to three years. For more information contact O. Scherzer at: [otmar.scherzer@uibk.ac.at](mailto:otmar.scherzer@uibk.ac.at) .

RICAM is a research institute which went into operation on January 1,

2003, and is building up to a total of 30 PostDoc positions in six areas: Computational Methods for Direct Field Problems, Inverse Problems, Optimization and Optimal Control, Symbolic Computing, Analysis of Partial Differential Equations, Mathematical Finance and Imaging.

The institute is housed on the campus of the Johannes Kepler University in Linz, a town of about 240.000 on the Danube, very close to the Austrian Alps, and half-way between Vienna and Salzburg. Further information is available under:  
<http://www.ricam.oeaw.ac.at>.

Starting date of the project is April, 1st, 2008.

The salary is according to the FWF Personalkostensätze DoktorandIn Neu: [http://www.fwf.ac.at/de/projects/personalkostensätze\\_2007.html](http://www.fwf.ac.at/de/projects/personalkostensätze_2007.html)

Applications with personal and scientific data, copies of relevant documents and a statement about scientific interests and achievements should be sent, preferably by email, to [otmar.scherzer@uibk.ac.at](mailto:otmar.scherzer@uibk.ac.at).

Postal address:  
Prof. Dr. Otmar Scherzer  
Department of Computer Science,  
University of Innsbruck,  
Techniker Str. 21a  
A-6020 Innsbruck, Austria.

The Austrian Academy of Sciences is an equal opportunity employer.

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Subject: Two PhD-Positions at RICAM in Linz  
From: Sergei Pereverzyev <[sergei.pereverzyev@oeaw.ac.at](mailto:sergei.pereverzyev@oeaw.ac.at)>  
Date: Tue, 8 Jan 2008

Two Ph.D. positions are available at the Johann Radon Institute for Computational and Applied Mathematics (RICAM) of the Austrian Academy of Sciences. The successful candidates will be members of the project "DIAdvisor - personal glucose predictive Diabetes Advisor". This is a large-scale integrating project selected by European Commission for funding within in EU Seventh Research Framework Programme (FP7). Project runtime: 01.03.2008 - 01.03.2012. RICAM is a member of DIAdvisor-consortium, responsible for mathematical part of the development of a prediction based tool which uses past and easily available information to optimize the therapy of diabetes. Glucose prediction is difficult and requires advanced mathematics within the fields of identification theory, optimization, statistical learning theory. The ideal candidate has a Master degree in Mathematics, Computer Science, or Information Engineering with courses successfully achieved in numerical analysis and experience in Matlab/Simulink.

Applications must include a letter of motivation, a CV, the listing of at least two referees, and, if possible, a pdf-file of the master thesis.

Applications and inquires should be send by e-mail to Prof. Dr. Sergei Pereverzyev ([sergei.pereverzyev@oeaw.ac.at](mailto:sergei.pereverzyev@oeaw.ac.at)) who is a person in charge of "DIAdvisor".

Submitted by: Prof. Dr. Sergei V. Pereverzyev, Johann-Radon-Institute



Identification strategy for orthotropic knitted elastomeric fabrics under large biaxial deformations S. Drapier, I. Gaied

Guaranteed characterization of thermal conductivity and diffusivity in presence of model uncertainty  
I. Braems, N. Ramdani, M. Kieffer, L. Jaulin, E. Walter, Y. Candau

This issue is also available online at <http://www.informaworld.com>

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Inverse Problems in Science and Engineering 2008 Vol. 16, No. 1  
Table of Contents

Special Issue-IPSE/5ICIPE

Filter solutions for the nonlinear inverse heat conduction problem  
James V. Beck

A simple 1D sensor model to account for deterministic thermocouple errors (bias) in the solution of the inverse heat conduction problem  
KA Woodbury; A. Gupta

Solving inverse heat conduction problems using trained POD-RBF network inverse method Z. Ostrowski; R. A. Bialecki; A. J. Kassab

Initial temperature reconstruction for nonlinear heat equation: application to a coupled radiative-conductive heat transfer problem  
S. S. Pereverzyev; R. Pinnau; N. Siedow

A simple method for stable identification of diffusion coefficients in the quasi-steady state of a post-discharge nitriding process  
A. Fraguera; J. A. Gómez; F. Castillo; J. Oseguera

A PDE-based inverse solver for diffusion tomography using multiple continuous wave sources T. R. Lucas

Special Issue: Proceedings of the 5th International Conference on Inverse Problems in Engineering: Theory and Practice, Cambridge, UK, July 11-15, 2005

This issue is also available online at <http://www.informaworld.com>

Submitted by: Zoë Sternberg, Publishing Editor, Applied Science Journals, Taylor & Francis  
4 Park Square, Milton Park, Abingdon, OX14 4RN, UK  
Tel: +44 207 017 4506; Fax: +44 207 017 6714

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Subject: TOC, J. Inverse and Ill-posed Problems 2007, issues 8 and 9  
From: Albroscheit, Simon <Simon.Albroscheit@degruyter.com>  
Date: Fri, 25 Jan 2008

Journal of Inverse and Ill-posed Problems 2007 Vol. 15 No. 8  
Table of Contents

Regularization methods for the analysis of EXAFS spectra of chemical complexes

A. L. Ageev, M. E. Korshunov, T. Ye. Reich, T. Reich, H. Moll

An inverse problem for the non-selfadjoint matrix Sturm-Liouville equation on the half-line G. Freiling, V. Yurko

Identification of stress corrosion cracking of SUS samples arising in electromagnetic nondestructive testing F. Kojima, A. Ausri

Tikhonov regularization of nonlinear ill-posed equations under general source condition Pallavi Mahale, M. Thamban Nair

On approximation of inverse problem for abstract parabolic differential equations in Banach spaces A. Prilepko, S. Piskarev, S.-Y. Shaw

Tikhonov regularization with nondifferentiable stabilizing functionals V. V. Vasin, M. A. Korotkii

This issue is available at: <http://dx.doi.org/10.1515/JIIP>

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Journal of Inverse and Ill-posed Problems 2007 Vol. 15 No. 9  
Table of Contents

Table of solutions and coefficients for second-order differential equations and inverse problems Yu. E. Anikonov, N. B. Ayupova

Multidimensional inverse problem for isotropic elasticity system in a sphere T. V. Bugueva

Identification of the hydraulic conductivities in a saltwater intrusion problem M. El Alaoui Talibi, D. Ouazar, M. H. Tber

Inverse problems for the Black-Scholes equation and related problems S. G. Pyatkov

This issue is available at: <http://dx.doi.org/10.1515/JIIP>

Submitted by: Robert Plato  
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Fax: +49 30 26005 352 WWW: <http://www.deGruyter.com>

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Subject: Contents, Inverse Problems, vol. 24, issue 1, Feb. 2008  
From: Laura Smith <[Laura.Smith@iop.org](mailto:Laura.Smith@iop.org)>  
Date: Fri, 25 Jan 200

Inverse Problems 2008 Vol. 24 No. 1  
Table of Contents

PUBLISHER'S ANNOUNCEMENT  
Important changes for 2008

TOPICAL REVIEW  
Electron tomography: a short overview with an emphasis on the absorption potential model for the forward problem D Fanelli and O "Oktem

## PAPERS

Numerical solution of forward and inverse Sturm--Liouville problems with an angular momentum singularity

Lidia Aceto, Paolo Ghelardoni and Marco Marletta

Inverse electromagnetic scattering in a two-layered medium with an application to mine detection

Fabrice Delbary, Klaus Erhard, Rainer Kress, Roland Potthast and Jochen Schulz

Deconvolution from Fourier-oscillating error densities under decay and smoothness restrictions

Alexander Meister

Boundary value problems for third-order linear PDEs in time-dependent domains

Beatrice Pelloni

Symmetric tridiagonal inverse quadratic eigenvalue problems with partial eigendata

Zheng-Jian Bai

The enclosure method for an inverse crack problem and the

Mittag--Leffler function

Masaru Ikehata and Takashi Ohe

Sampling methods for low-frequency electromagnetic imaging

Bastian Gebauer, Martin Hanke and Christoph Schneider

A single-view imaging strategy for transient scattered fields

Ilaria Catapano, Kamal Belkebir and Jean-Michel Geffrin

How general are general source conditions?

Peter Math'e and Bernd Hofmann

Blind image resolution enhancement based on a 2D constant modulus algorithm

Fatih Kara and Cabir Vural

Identification of Green's functions singularities by cross correlation of noisy signals

Claude Bardos, Josselin Garnier and George Papanicolaou

Inverse problems for the wave equation with a single coincident source--receiver pair

Rakesh

Sequential unconstrained minimization algorithms for constrained optimization

Charles Byrne

A Lavrent'ev-type approach to the on-line computation of Caputo fractional derivatives

L Pandolfi

Weak and strong convergence of Krasnoselski--Mann iteration for hierarchical fixed point problems

Yonghong Yao and Yeong-Cheng Liou

Cloaking via change of variables in electric impedance tomography

R V Kohn, H Shen, M S Vogelius and M I Weinstein

Inverse problems for the Schr"odinger equation via Carleman inequalities with degenerate weights

Alberto Mercado, Axel Osses and Lionel Rosier

The linear sampling method in a waveguide: a modal formulation  
L Bourgeois and E Lun\eville

The inverse three-spectral problem for a Stieltjes string and the  
inverse problem with one-dimensional damping  
O Boyko and V Pivovarchik

Surface impedance determination of an object located over a planar PEC  
surface and its use in shape reconstruction  
G\ul Seda \Unal, Ali Yapar and \.Ibrahim Akduman

Estimation of time-varying pollutant emission rates in a ventilated  
enclosure: inversion of a reduced model obtained by experimental  
application of the modal identification method  
M Girault, D Maillet, F Bonthoux, B Galland, P Martin, R Braconnier  
and J R Fontaine

Splines on the three-dimensional ball and their application to seismic  
body wave tomography Abel Amirbekyan and Volker Michel

{\it In situ} compressive sensing  
Lawrence Carin, Dehong Liu and Bin Guo

The stationary transport problem with angularly averaged measurements  
Ian Langmore

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on the web. This issue is available at:  
<http://www.iop.org/EJ/toc/0266-5611/24/1>

Submitted by: Laura A Smith, Production Editor  
Journal of Physics A: Mathematical and Theoretical  
E-mail: [laura.smith@iop.org](mailto:laura.smith@iop.org)

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Subject: Table of contents for Mathematics of Control, Signals, Systems  
From: Jan H. van Schuppen <[mcss@cw.nl](mailto:mcss@cw.nl)>  
Date: Tue, 8 Jan 2008

Mathematics of Control, Signals, and Systems 2007 Vol. 19, No. 4  
Table of Contents

Minimal symmetric Darlington synthesis  
L. Baratchart, P. Enqvist, A. Gombani, M. Olivi

Feedback invariance of SISO infinite-dimensional systems  
K. Morris, R. Rebarber

Well-posedness and regularity for an Euler-Bernoulli plate with variable  
coefficients and boundary control and observation  
B.-Z. Guo, Z.-X. Zhang

On stability of a class of positive linear functional difference  
equations  
P.H.A. Ngoc, T. Naito, J.S. Shin

The tables of contents of MCSS and the pdf files of its papers are  
available from the publisher Springer at:  
<http://link.springer.de/link/service/journals/00498/index.htm>

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[www.math.rutgers.edu/~sonntag/mcss.html](http://www.math.rutgers.edu/~sonntag/mcss.html)

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Submitted by: Jan van Schuppen, Editor-in-chief,  
Mathematics of Control, Signals, and Systems

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Subject: Table of Contents - Linear and Multilinear Algebra  
From: Zoë Sternberg <Zoe.Sternberg@tandf.co.uk>  
Date: Thu, 17 Jan 2008

Linear and Multilinear Algebra 2008 Vol. 56, No. 1 & 2  
Table of Contents

Preface and conference report  
Chi-Kwong Li, Leiba Rodman, Christiane Tretter

The significance of the C-numerical range and the local C-numerical  
range in quantum control and quantum information  
Thomas Schulte-herbrüggen, Gunther Dirr, Uwe Helmke, Steffen J. Glaser

Relative C-numerical ranges for applications in quantum control and  
quantum information  
G. Dirr; U. Helmke, M. Kleinstеuber, Th. Schulte-Herbrüggen

Geometry of higher-rank numerical ranges  
Man-Duen Choi, Michael Giesinger, John A. Holbrook, David W. Kribs

The higher rank numerical range is convex Hugo J. Woerdeman

Applications of polar decompositions of idempotent and 2-nilpotent  
operators Takayuki Furuta

A functional calculus based on the numerical range: applications  
Michel Crouzeix

Ranks and determinants of the sum of matrices from unitary orbits  
Chi-Kwong Li, Yiu-Tung Poon, Nung-Sing Sze

Line segments and elliptic arcs on the boundary of a numerical range  
Hwa-Long Gau, Pei Yuan Wu

Flat portions on the boundary of the numerical ranges of certain  
Toeplitz matrices Mao-Ting Chien, Hiroshi Nakazato

On the numerical range behavior under the generalized Aluthge transform  
David E. V. Rose, Ilya M. Spitkovsky

Pairs of quaternionic selfadjoint operators with numerical range in a  
halfplane Leiba Rodman

On the numerical range of a matrix  
Paul F. Zachlin, Michiel E. Hochstenbach

This issue is also available online at <http://www.informaworld.com>

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Linear and Multilinear Algebra 2008 Vol. 56, No. 3  
Table of Contents

Finite orthogonal frames generated by normal operators  
Yoo Young Koo, Jae Kun Lim, In-Sook Shin

Subspaces, angles and pairs of orthogonal projections A. Galantai

Adjacent edge conditions for the totally nonnegative completion problem  
Emily B. Dryden, Charles R. Johnson, Brenda K. Kroschel

Mapping and preserver properties of the principal pivot transform  
Olga Slyusareva, Michael Tsatsomeros

Zero-sets of complex homogeneous polynomials Carlos A. S. Soares

Characterizations of EP, normal, and Hermitian matrices  
Oskar Maria Baksalary, Götz Trenkler

A connection between ordinary and Laplacian spectra of bipartite graphs  
Bo Zhou, Ivan Gutman

Products of nilpotent matrices R. P. Sullivan

The continuous spectrum for the M/M/c queue  
Winfried K. Grassmann, Javad Tavakoli

Hyperdeterminants on semilattices Jean-Gabriel Luque

This issue is also available online at <http://www.informaworld.com>

Submitted by: Zoë Sternberg, Publishing Editor, Applied Science Journals,  
Taylor & Francis  
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Tel: +44 207 017 4506; Fax: +44 207 017 6714

-----  
Subject: Contents, J. Applied Functional Analysis, Vol. 3, 2008  
From: "George A Anastassiou (ganastss)" <ganastss@memphis.edu>  
Date:  
T=ue, 22 Jan 2008 17:24:40 -0500

"Journal of Applied Functional Analysis, Volume 3, 2008 was published.  
For table of contents and more please visit  
<http://www.eudoxuspress.com> "

THANK YOU

Sincerely Yours

George A. Anastassiou, Ph.D  
Department of Mathematical Sciences  
The University of Memphis, Memphis, TN 38152, USA

-----

Subject: JCAAM 08 Vol. 6 published

From: "George A Anastassiou (ganastss)" <ganastss@memphis.edu>

Date: Tue, 29 Jan 2008

"Journal of Concrete and Applicable Mathematics" 2008, Vol. 6, was published.

For Table of Contents and more please visit

[www.eudoxuspress.com](http://www.eudoxuspress.com)

Thank You

Sincerely

George A. Anastassiou, Ph.D

Department of Mathematical Sciences

The University of Memphis, Memphis, TN 38152, USA

----- end -----

## IPNet Digest Volume 15, Number 02 April 11, 2008

### Today's Editors:

Patricia K. Lamm, Michigan State University  
Zhewei Dai, Alma College

### Today's Topics:

New International Society on Inverse Problems in Science & Eng.  
NSF-CBMS Conference on Radar Imaging  
Electrical Impedance Tomography (EIT) Conference  
Conf. on Biomedical Math., including Imaging and Inverse Problems  
Workshop on Inverse and Partial Information Problems  
10th Int'l Workshop on Opt.& Inverse Probs. in Electromagnetism  
Workshop on New Directions in Tomographic Image Reconstruction  
6th Int'l. Conference on Inverse Problems in Engineering  
SIAM Conference on Optimization  
Post-Doc: NASA Dryden Flight Research Center  
New Book: An Introduction to Bayesian Scientific Computing  
Online: Inverse Problems Editorial Board Highlights of 2007  
Special Issue: Linear Algebra and Its Applications  
Table of Contents: Inverse Problems  
Table of Contents: Nonlinear Analysis: Modelling and Control

### Submissions for IPNet Digest:

Mail to [ipnet-digest@math.msu.edu](mailto:ipnet-digest@math.msu.edu)

### Information about IPNet:

<http://www.math.msu.edu/ipnet>

-----  
From: IPSES <[ipses@mecanica.coppe.ufrj.br](mailto:ipses@mecanica.coppe.ufrj.br)>  
Subject: Multidisciplinary International Society on Inverse Problems  
in Science and Engineering  
Date: Tue, 11 Mar 2008

An Invitation to Join a  
Multidisciplinary International Society on  
Inverse Problems in Science and Engineering

Dear Colleagues:

The idea of creating an international society in the general field of inverse problems is at least a decade old. A consensus based on inputs provided by several world-wide prominent colleagues is that the time for the creation of such a society has now arrived. Thus, we are creating an international society of professionals working on the multidisciplinary aspects of inverse problems. Several national inverse problems societies have already been created, and one international association was recently formed specifically to serve the mathematical inverse problems community.

The objective of this new society is to be truly multidisciplinary and international. The proposed society should bring together researchers and practitioners working on all aspects of inverse problems in diverse areas, such as engineering, physics, chemistry, medicine, mathematics, geology, meteorology, nanotechnology, finance, and emerging fields.

One major benefit for the members of this proposed society would be an electronic subscription to the journal Inverse Problems in Science and Engineering, which shall be included in an annual membership fee of approximately fifty US Dollars. We are currently negotiating this benefit with Taylor & Francis Publishers.

In addition, a regular quarterly electronic newsletter shall be available to all members informing them of all pertinent scientific events, funding opportunities, new research trends, jobs, scholarships, etc.

The proposed international society would serve as an overall forum that will institute an international conference to be held periodically moving its location to different continents. This new international society would not interfere with the existing or possible future national, regional and disciplinary societies. All existing and possible new conferences, symposia, workshops and sessions on any aspects of the inverse problems could thus continue to be held without interruption.

If you are already a member of any national, regional or international societies dealing with inverse problems, this should not preclude you from becoming a member of this new society.

This proposed international society will be legally registered as a nonprofit organization. Bylaws of this society will be similar to the bylaws of several recognized professional societies.

You are invited to become a member of this new international society by registering (initially free of charge) on this website:

<http://www.ipsesociety.org/>

All discussions and voting will be performed via internet in the most democratic manner by anyone who joins the new multidisciplinary society. This internet based voting will include the name of the society, details of its proposed bylaws, and elections of the new society's initial leadership.

If you have received this message more than one time or if you want your name to be taken off this mailing list, please send your e-mail message to [membership@ipsesociety.org](mailto:membership@ipsesociety.org).

George S. Dulikravich, Helcio R. B. Orlande, Marcelo J. Colaco  
(on behalf of the steering committee for the new society)

-----  
From: "Aktosun, Tuncay" <[aktosun@uta.edu](mailto:aktosun@uta.edu)>  
Subject: NSF-CBMS Conference on Radar Imaging, May 27-May 31, 2008  
Date: Thu, 14 Feb 2008

The Department of Mathematics at University of Texas at Arlington is hosting an NSF-CBMS Conference on Radar Imaging during May 27-May 31, 2008, featuring Prof. Margaret Cheney as the principal speaker. The information and an application form for the conference are available at the url:

<http://omega.uta.edu/~aktosun/cbms2008>

Even though the application deadline is April 1, 2008, early

applications are strongly encouraged, and we may provide an earlier invitation decision for some completed applications. Please also encourage your colleagues and graduate students to apply. Some support is available to participate in this conference.

The contact person for this NSF-CBMS conference is Professor Tuncay Aktosun (e-mail: aktosun@uta.edu).

Tuncay Aktosun  
Department of Mathematics, University of Texas at Arlington,  
Arlington, TX 76019-0408  
phone: 817-272-1545 url: <http://omega.uta.edu/~aktosun>  
fax: 817-272-5802 office: 461 Pickard Hall  
e-mail: aktosun@uta.edu

-----  
From: EIT Conference 2008 <eit.conference.2008@Dartmouth.EDU>  
Subject: EIT conference announcement  
Date: Wed, 27 Feb 2008

Greetings everyone

Dear friends and colleagues

The 2008 Electrical Impedance Tomography Conference will be taking place at Dartmouth College, in Hanover, New Hampshire, USA, June 16 to 19. We are now accepting manuscripts for review. We would like to bring to your attention the following relevant facts about the conference:

Organizer: Alex Hartov, Dartmouth College, USA  
Co-organizer: Eung Je Woo, Kyung Hee University, Korea

Conference web site: <http://engineering.dartmouth.edu/eit2008/>  
Conference Email: EIT2008@Dartmouth.edu

Important dates:

Deadline for initial drafts submissions: April 15 2008  
Acceptance Notices for manuscripts: May 15 2008  
Deadline for submitting final drafts: May 30 2008  
Registration deadline: April 30 2008  
Late registration deadline: June 1 2008

Information on Manuscript Preparation, travel and accommodations are available on the conference web site. We suggest you check the site periodically for updated information on registration and schedule.

We are seeking submissions from researchers involved in EIT in all its forms and relating to all applications. We are hoping to interest new participants who have not come to this conference in the past. Topics will include: EIT Hardware, Reconstruction, Clinical Applications, Non-Clinical Applications. Peripherally related topics will be considered if sufficient interest is expressed by reviewers and submitters.

The conference will consist of plenary sessions (single track). Depending on the number of submissions, poster sessions may be arranged as well to accommodate all accepted papers. Authors will be notified whether their submissions will be presented or posted. All

accepted papers will be collected in an electronic document constituting the Proceedings of the 2008 EIT Conference which will be made available to the conference attendees in electronic form.

As has been the custom with this conference, a special issue of Physiological Measurements will be planned, to which the conference attendees will be invited to submit an expanded form of their conference presentations. Additional information concerning this will be available at the conference.

We hope to see you in Hanover in June

Alex Hartov  
Associate Professor of Engineering  
Thayer School of Engineering, Organizer EIT Conference 2008, Dartmouth College  
EIT2008@dartmouth.edu  
<http://engineering.dartmouth.edu/EIT2008/>

-----  
From: Yair Censor <yair@math.haifa.ac.il>  
Subject: Conference on Biomedical Mathematics: Promising Directions in Imaging, Therapy Planning and Inverse Problems.  
Date: Mon, 10 Mar 2008

We are pleased to announce the forthcoming "Huangguoshu International Interdisciplinary Conference on Biomedical Mathematics: Promising Directions in Imaging, Therapy Planning and Inverse Problems".

The Conference will take place during November 3-9, 2008, at the convention center of The Huangguoshu National Park of China, Guizhou, China.

The following speakers already confirmed their participation:

Ashok Amin, Simon Arridge, Guillaume Bal, Heinz Bauschke, Adi Ben-Israel, James Brink, Yair Censor, Bruno De Man, Tommy Elfving, Jeffrey Fessler, Horst Hamacher, Ming Jiang, Alexander Katsevich, Alfred Louis, Atsushi Momose, Frank Natterer, Uwe Oelfke, Franz Pfeiffer, Brian Pogue, Yi Rao, Jorge Ripoll, John Schotland, Reinhard Schulte, Eva Sevick, George Starkschall, Alexei Trofimov, Michael Vannier, Ge Wang, Xiaoyun Xiong, Lei Xing, Yangbo Ye, Yu Zou, Yantian Zhang, Zhaotian Zhang, Hongkai Zhao, Tie Zhou, Guangying Zhu.

FOR FURTHER DETAILS PLEASE GO TO THE CONFERENCE WEBSITE AT:  
<http://iria.pku.edu.cn/HGS08/index.htm>

OR CONTACT ANY ONE OF THE CO-CHAIRS:  
Ming Jiang (chair, Peking University), <ming-jiang@pku.edu.cn>,  
Yair Censor (co-chair, University of Haifa), <yair@math.haifa.ac.il>  
Ge Wang (co-chair, Virginia Polytechnic Institute & State University), <wangg@vt.edu>

Prof. Yair Censor, Dept. of Mathematics, Univ. of Haifa, Haifa 31905, Israel.  
Homepage: <http://math.haifa.ac.il/censor.html>

-----  
From: "Hanna Pikkarainen (RICAM)" <hpikkara@heaven.ricam.uni-linz.ac.at>

Subject: Workshop on inverse and partial information problems:  
methodology and applications

Date: Thu, 20 Mar 2008

Workshop on inverse and partial information problems: methodology and applications

October 27-31, 2008

RICAM, Linz, Austria

Dear Colleagues,

the Johann Radon Institute for Computational and Applied Mathematics (RICAM) of the Austrian Academy of Sciences in Linz holds a Special semester on Stochastics with emphasis on Finance during the period from September to December 2008. The Scientific Committee is formed by H. Albrecher, K. Kunisch, H.K. Pikkariainen, W. Runggaldier (chairman) and W. Schachermayer.

The goal of the Special Semester is to provide a stimulating environment for mathematicians, quantitative economists and, in particular, researchers in the areas of applied probability and analysis, computational methods, and finance to jointly address emerging challenges in the interface between stochastics and finance.

The aim is to focus on the following topics that are partly related to research conducted at the RICAM itself:

1. Inverse and partial information problems: methodology and applications.
2. Optimization and optimal control.
3. Computational methods with applications in finance, insurance and the life sciences.
4. Stochastic methods in partial differential equations and applications of deterministic and stochastic PDEs.
5. Advanced modeling in finance and insurance.

Leading experts in one or more of the above topics, talented post-docs and doctoral students will have the opportunity to collaborate at RICAM in an interdisciplinary atmosphere in order to gain new perspectives and to develop novel approaches.

The web page of the special semester is  
<http://www.ricam.oeaw.ac.at/specsem/sef/>.

The workshop in the interest of researchers in inverse problems with title

Workshop on inverse and partial information problems:  
methodology and applications

is held on October 27-31, 2008. The confirmed invited speakers of the workshop are

Guillaume Bal, Columbia University, USA  
H. T. Banks, North Carolina State University, USA  
Liliana Borcea, Rice University, USA  
Rama Cont, Columbia University, USA  
Manfred Deistler, Vienna University of Technology, Austria

George Haller, Massachusetts Institute of Technology, USA  
Thorsten Hohage, University of Göttingen, Germany  
Bernard A. Mair, University of Florida, USA  
Peter Mathe, Weierstrass Institute for Applied Analysis and Stochastics,  
Germany  
Ivan Mizera, University of Alberta, Canada  
Axel Munk, University of Göttingen, Germany  
Jong-Shi Pang, University of Illinois, USA  
Samuli Siltanen, Tampere University of Technology, Finland

The participants have a possibility to give a oral or a poster presentation in the workshop.

The deadline of abstracts and registration is May 31, 2008.

Sincerely,

Karl Kunisch, University of Graz & RICAM  
Hanna Katriina Pikkarainen, RICAM & Helsinki University of Technology

Submitted by: Dipl.-Ing. Dr. Hanna Katriina Pikkarainen  
Johann Radon Institute for Computational and Applied Mathematics,  
Austrian Academy of Sciences, Altenbergerstrasse 69, A-4040 Linz  
Austria

E-mail: hanna.pikkarainen@oeaw.ac.at  
Tel: +43 (0)732 2468 5233  
Fax: +43 (0)732 2468 5212  
Mobile: +43 (0)699 8145 4038  
<http://www.ricam.oeaw.ac.at/people/page/pikkarainen/>

-----  
From: Hartmut Brauer <hartmut.brauer@tu-ilmenau.de>  
Subject: OIPE 2008 - Workshop, Ilmenau (Germany)  
Date: Tue, 25 Mar 2008

Dear Colleague,

We would like to let you know that this is the Last Reminder for papers for the 10th International Workshop on Optimization and Inverse Problems in Electromagnetism (OIPE 2008) to be held at the Ilmenau University of Technology, Ilmenau, Germany, on September 14-17, 2008.

The aim of the workshop is to discuss recent developments in optimization and inverse methodologies and their applications to the design and operation of electromagnetic devices. It is intended to establish with the workshop an occasion where experts in electromagnetics and other areas (e.g. engineering, mathematics, physics, etc.), involved in research or industrial activities, can discuss on the theoretical aspects and on the technical relevance of optimization and inverse problems, in the general framework of the innovation in electromagnetic methods and applications. Thus, the workshop will offer a platform for the exchange of information and experience of developments, trends and applications from both industrial and theoretical view points.

Previous editions were held in Pavia/Italy (1989), Warsaw/Poland (1992), Geneva/Switzerland (1994), Brno/Czech Republic (1996), Jyväskylä/Finland (1998), Torino/Italy (2000), Lodz/Poland (2002), Grenoble/France (2004) and Sorrento/Italy (2006).

You can find the Conference website at: <http://www.OIPE2008.org/>

Following up the great number of requests received from many potential authors, and taking into account that this year Easter holiday was very early, the OIPE 2008 Conference Organizing Committee decided to extend the deadline for submission of digests to April 15th, 2008.

Please submit your two-page-digests as soon as possible since late submission cannot be accepted due to the very tight reviewing schedule.

You will find on the Workshop website <http://www.OIPE2008.org/> the Call-for-Papers as well as a template for preparing the digests. Please register first at this website. We remind you that first this registration will enable you to access to the conference management system for uploading your digest. Please notice that only online submission is possible. Please visit the workshop website ([www.OIPE2008.org](http://www.OIPE2008.org)) from time to time and check for updates.

Whereas the digests will be published in the workshop proceedings available at the workshop, a selected number of papers will be published (after a peer reviewing procedure) in:

- \* The International Journal for Computation and Mathematics in Electrical and Electronic Engineering (COMPEL), (in issue 5, 2009)
- \* International Journal of Applied Electromagnetics and Mechanics (IJAEM), (in 2009)
- \* International Journal of Bioelectromagnetism (IJBEM), (online)

We strongly encourage you to submit papers to the OIPE 2008 Workshop.

We also appreciate your cooperation in forwarding this information to other Colleagues that might be interested in submitting a paper. If you have any further questions, please do not hesitate to contact us.

We are looking forward to meeting you in Ilmenau (Germany) in September.

With very best wishes

Jens Haueisen

Chairman of the OIPE 2008 Workshop

Institute of Biomedical Engineering and Informatics, Dept. Computer Science and Automation, Ilmenau University of Technology

P.O. Box 10 05 65

D-98684 Ilmenau, Germany

Phone: +49 3677 69 2860

Fax: +49 3677 69 1311

Email : [info@oipe2008.org](mailto:info@oipe2008.org)

Website: <http://www.OIPE2008.org/>

-----  
From: Wagner Muniz <[Wagner.Muniz@manchester.ac.uk](mailto:Wagner.Muniz@manchester.ac.uk)>

Subject: Workshop on New Directions in Tomographic Image

Reconstruction, 30 June - 1 July, 2008, Manchester, UK

Date: Fri, 28 Mar 2008

Workshop: New Directions in Tomographic Image Reconstruction

30 June - 1 July, 2008

University of Manchester, UK

Tomographic image reconstruction, being a highly active research area stimulated by a number of real-life applications, naturally employs scientists with various backgrounds. This variety of applications has led to a high degree of specialisation within each niche, possibly preventing innovations to be sufficiently disseminated. This workshop aims to provide a platform for interdisciplinary exchange of ideas and techniques developed by different communities leading to the unveiling of new directions in the field and hopefully triggering future collaborations.

Our intended audience is wide, however we intend to keep a slight bias towards mathematical yet practical aspects of imaging, gathering specialists in inverse problems, numerical analysis as well as practitioners to discuss topics such as sufficiency of data, stability of reconstructions, x-ray scattering correction and inversion, algebraic reconstruction methods, and image post-processing to name a few.

The list of confirmed speakers includes:

Simon Arridge (London, UK)  
Rolf Clackdoyle (Saint-Etienne, France)  
Bernd Fischer (Luebeck, Germany)  
Per Christian Hansen (Lyngby, Denmark)  
Ivana Jovanovic (Lausanne, Switzerland)  
Frank Natterer (Muenster, Germany)  
Sarah Patch (Wisconsin, USA)  
Vladimir Sharafutdinov (Novosibirsk, Russia)  
Robert Speller (London, UK)  
Jared Tanner (Edinburgh, UK)

Further information is available online at  
<http://www.mims.manchester.ac.uk/events/workshops/TIR08/>

If you are interested in participating in the workshop please send an email to [wagner.muniz@manchester.ac.uk](mailto:wagner.muniz@manchester.ac.uk)

Please note that the number of participants is limited.

Organizers: Marta Betcke, Bill Lionheart, Wagner Muniz, and Phil Withers

Submitted by: Dr. Wagner Muniz, School of Mathematics,  
University of Manchester, Manchester, M13 9PL, UK  
Email: [Wagner.Muniz@manchester.ac.uk](mailto:Wagner.Muniz@manchester.ac.uk)  
Tel.: +44 (0) 161 275 5824  
Fax: +44 (0) 161 306 3669  
URL: <http://www.maths.manchester.ac.uk/~wmuniz>

-----  
From: icipe2008 <[conf.icipe2008@ciril.fr](mailto:conf.icipe2008@ciril.fr)>  
Subject: 6th Int. Conf. on Inverse Problems in Engineering (ICIPE 2008)  
Date: Sun, 6 Apr 2008

Dear Colleague,

The 6th International Conference on Inverse Problems in Engineering: Theory and Practice (ICIPE 2008) will be held in Dourdan (Paris), France on June 15-19, 2008.

This Symposium is the sixth of the International Conference on Inverse

Problems in Engineering: Theory and Practice (ICIPE) series, initiated in Palm Coast (USA) in 1993. Noteworthy features of all ICIPE meetings are their balanced focus on theory and applications (and, better yet, the combination of both) and a residential setting in an informal atmosphere aimed at maximizing opportunities for interactions between participants. The previous ICIPE was held in Cambridge (UK) in July 2005.

The scientific programme will comprise invited lectures by S. Arridge (UK), J. Kaipio (Finland), S. Roux (France) and M. Vogelius (USA) and about 120 contributed papers.

The regular registration fee is valid until April 15, 2008 (see the Conference website <http://www.icipe2008.ciril.fr> for details).

We hope that you will be interested to participate, and look forward to welcoming you in Dourdan in June.

With our best wishes,

The ICIPE 2008 organizing committee:  
Denis Maillet (chairman),  
Stéphane Andre, Marc Bonnet, Andrei Constantinescu, Abdellatif El Badia,  
Yvon Jarny.

-----  
From: "Nicole C. Jorlett" <Jorlett@siam.org>  
Subject: SIAM Conference on Optimization (OP08) - Registration and Program  
Date: Mon, 17 Mar 2008

Conference Name: SIAM Conference on Optimization  
Location: Boston Park Plaza Hotel and Towers, Boston Massachusetts  
Date: May 10-13, 2008

Invited Speakers: Etienne de Klerk, Tilburg University, Netherlands;  
Matthias Heinkenschloss, Rice University; Jan Modersitzki, University of Lubeck, Germany; Annick Sartenaer, Universite Notre Dame de la Paix, Belgium; Stefan Scholtes, Cambridge University, United Kingdom; Pascal Van Hentenryck, Brown University; Andreas Wächter, IBM Research; Robert Weismantel, University of Magdeburg, Germany

Registration is Now Available!

Hotel Reservation and Pre-Registration Deadline: Thursday, April 10, 2008

Registration and the program for this conference are available at:  
<http://www.siam.org/meetings/op08/>

For additional information, contact the SIAM Conference Department at [meetings@siam.org](mailto:meetings@siam.org).

-----  
From: "Brenner, Martin J. (DFRC-RS)" <martin.j.brenner@nasa.gov>  
Subject: Post-Doc: NASA Dryden Flight Research Center  
Date: Thu, 14 Feb 2008

Post-Doc: NASA Dryden Flight Research Center  
Contributed by: Marty Brenner, [Martin.J.Brenner@nasa.gov](mailto:Martin.J.Brenner@nasa.gov)

Applicants to NASA Dryden Flight Research Center MUST BE U.S. CITIZENS.

The NASA Dryden Postdoctoral Program offers unique research opportunities to highly talented individuals to engage in ongoing NASA research programs. This is a one to three-year fellowship appointment which is designed to advance NASA's mission objectives. Dryden Flight Research Center is NASA's premier flight research and test organization for the validation of high-risk, pioneering aerospace technology, space exploration concepts, and the conduct of science mission observations.

Located at Edwards, California, in the western Mojave Desert, Dryden is uniquely situated to take advantage of the excellent year-round flying weather, remote area, and visibility to test some of the nations most exciting air vehicles.

Dryden Flight Research Center plays a vital role in advancing technology and science through flight. Here, we demonstrate America's leadership in aeronautics and space technology as we continue to push the envelope to revolutionize aviation and pioneer aerospace technology. Currently, at NASA Dryden Flight Research Center we are seeking a highly-motivated and independent Post Doctoral Fellow. We are interested in the following broad areas of research:

- \* Nonlinear System Identification Techniques for Aeroservoelasticity
- \* Health Monitoring Techniques for the Next Generation of Aircraft
- \* Application of Structure Detection Methodology for Model Development of Advanced Aircraft from Flight Test Data
- \* Adaptive Multiresolution Analysis of Aerospace Vehicle Dynamics
- \* Distributed Identification and Control of Aerospace Vehicles

Please note that potential candidates must be awarded the Ph.D. (or have defended) before we can extend a letter of offer. Salary and benefits are highly competitive with industry standards.

If you are interested in these research topics please contact:

Marty Brenner  
Structural Dynamics Group  
Email: [Martin.J.Brenner@nasa.gov](mailto:Martin.J.Brenner@nasa.gov)  
Phone: 661-276-3793

-----  
From: "Lorusso, Linda, Springer US" <[Linda.Lorusso@springer.com](mailto:Linda.Lorusso@springer.com)>  
Subject: An Introduction to Bayesian Scientific Computing  
Date: Thu, 14 Feb 2008

New from Springer

An Introduction to Bayesian Scientific Computing

D. Calvetti, Case Western Reserve University, Cleveland, OH, USA  
E. Somersalo, Helsinki University of Technology, Helsinki, Finland

Appropriate for undergraduate and graduate students, as well as researchers in various areas of mathematics and its applications -- such as biology and engineering -- this book provides an integrated view across numerical linear algebra and computational statistics. While not fully immersing the reader into statistical analysis, the text allows the

reader to get acquainted with the Bayesian approach to computational science.

Key features include:

- \* Relaxed, non-technical introduction to Bayesian inverse problems
- \* Expository and accessible

2007, XIV, 202 p., Softcover  
Surveys and Tutorials in Applied Mathematics, Volume 2  
ISBN: 978-0-387-73393-7  
\$39.95

Visit [springer.com/978-0-387-73393-7](http://springer.com/978-0-387-73393-7) for sample pages and the complete Table of Contents.

Submitted by: Linda Lorusso, Product Manager, Mathematics, Springer,  
233 Spring Street, New York, NY 10013, 212-460-1711

-----  
From: Zoe Crossman <Zoe.Crossman@iop.org>  
Subject: Inverse Problems Editorial Board Highlights of 2007  
Date: Mon, 31 Mar 2008

The Inverse Problems Editorial Board Highlights of 2007 are now online and free to read until 31 December 2008:  
<http://herald.iop.org/IPHighlights2007IPNet/m103/cid//link/1477>

This selection of articles chosen by the Inverse Problems Editorial Board highlights the breadth and quality of the research published in Inverse Problems in 2007. This is intended not as a list of the 'best' articles, but as an interesting and stimulating reading list. Articles were selected for many reasons, some contain outstanding research and breakthroughs, some may have an especially clear exposition and are beautifully presented, others are instructive, containing results and tools useful to many readers.

We hope you enjoy reading these articles as much as we have.

Kate Watt  
Publisher, Inverse Problems  
[ip@iop.org](mailto:ip@iop.org)

IOP Publishing Limited Registered in England under Registration No 467514. Registered Office: Dirac House, Temple Back, Bristol BS1 6BE England

-----  
From: Hans Schneider <hans@math.wisc.edu>  
Subject: LAA announcement of special issue  
Date: Mon, 25 Feb 2008 10:07:53 -0500

LINEAR ALGEBRA AND ITS APPLICATIONS  
Special Issue in honor of Shmuel Friedland

Linear Algebra and its Applications is pleased to announce a special issue in honor of Professor Shmuel Friedland on the occasion of his 65th birthday on 24 September 2009 in recognition of his many important and fundamental contributions to linear algebra and other topics in mathematics.

We solicit papers for the special issue within the entire scope of LAA or the research interests of Shmuel Friedland. The deadline for submission of papers is 30 November 2008. Papers for submission will be subject to normal refereeing procedures according to the usual standards of LAA. They should be sent, preferably as pdf attachments in email, to one of the following five special editors:

Avi Berman  
Department of Mathematics  
Technion  
Haifa 32000, Israel  
berman@technion.ac.il

Christian Krattenthaler  
Fakultät für Mathematik  
Universität Wien  
Nordbergstraße 15  
A-1090 Vienna  
AUSTRIA  
Christian.Krattenthaler@univie.ac.at

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zhang@nova.edu

The editor-in-chief responsible for this special issue is Hans Schneider.

Submitted by: Hans Schneider, Mathematics Department, Van Vleck Hall,  
University of Wisconsin, 480 Lincoln Drive, Madison, WI 53706-1313 USA  
Office Phone: 608-262-1402  
Math Dept Phone: 608-263-3054                      Email: hans@math.wisc.edu  
Math Dept Fax: 608-263-8891                      http://www.math.wisc.edu/~hans

-----  
From: Laura Smith <Laura.Smith@iop.org>  
Subject: Table of Contents - Inverse Problems  
Date: Tue, 25 Mar 2008

Inverse Problems      2008      Vol.24, No.2

## Table of Contents

Quantitative estimates of unique continuation for parabolic equations, determination of unknown time-varying boundaries and optimal stability estimates Sergio Vessella

On Wiener-type filters in SPECT J-P Guillement, R G Novikov

Iterative Runge--Kutta-type methods for nonlinear ill-posed problems C B"ockmann, P Pornsawad

Function reconstruction from noisy local averages Yu Chen, Jianguo Huang, Weimin Han

The Gel'fand--Levitan theory for one-dimensional hyperbolic systems with impulsive inputs Wuqing Ning, Masahiro Yamamoto

An inverse problem for a linear crack in an anisotropic elastic body and the enclosure method Masaru Ikehata, Hiromichi Itou

Numerical implementation of the convexification algorithm for an optical diffusion tomograph Hua Shan, Michael V Klibanov, Hanli Liu, Natee Pantong, Jianzhong Su

A simple method for solving the inverse scattering problem for the difference Helmholtz equation Yuri A Godin, Boris Vainberg

Inverse scattering for gratings and wave guides Gregory Eskin, James Ralston and Masahiro Yamamoto

Direct and inverse problems for the generalized relativistic Toda lattice and the connection with general orthogonal polynomials A Gago-Alonso, L Santiago-Moreno, L R Pi\~neiro-D\' \i az

An algebraic method for identification of dipoles and quadrupoles Takaaki Nara

The Radon transform on  $SO(3)$ : a Fourier slice theorem and numerical inversion R Hielscher, D Potts, J Prestin, H Schaeben, M Schmalz

Uniqueness and  $H^{\infty}$  stability of discontinuous diffusion coefficients in three related inverse problems for the heat equation Olivier Poisson

Zeroth-order inversion of transient pressure observations D W Vasco

Characterization of an elastic cylinder and an elastic sphere with the time-reversal operator: application to the sub-resolution limit Jean-Gabriel Minonzio, Franck D Philippe, Claire Prada, Mathias Fink

Inverse scattering for an AKNS problem with rational reflection coefficients H Steudel, D J Kaup

Numerical detection and reduction of non-uniqueness in nonlinear inverse problems Emanuel Winterfors, Andrew Curtis

Recovering the mass and the charge of a Reissner--Nordstr"om black hole by an inverse scattering experiment Thierry Daud'e, Fran\cc ois Nicoleau

Regularization by fractional filter methods and data smoothing  
E Klann and R Ramlau

Optical tomography problems at layered media  
I V Prokhorov, I P Yarovenko, V G Nazarov

Explicit solutions of the cubic matrix nonlinear Schrödinger equation  
Francesco Demontis, Cornelis van der Mee

Inversion formulae for the spherical mean in odd dimensions and the  
Euler--Poisson--Darboux equation Boris Rubin

Designing arrays of Josephson junctions for specific static responses  
J G Caputo, L Loukitch

A Rao--Blackwellized particle filter for magnetoencephalography  
C Campi, A Pascarella, A Sorrentino, M Piana

Digital image deblurring with SOR  
V N Strakhov, S V Vorontsov

Efficient computation of the Tikhonov regularization parameter by  
goal-oriented adaptive discretization  
Anke Griesbaum, Barbara Kaltenbacher, Boris Vexler

Weyl functions, the inverse problem and special solutions for the  
system auxiliary to the nonlinear optics equation  
Alexander Sakhnovich

A systematic approach to robust preconditioning for gradient-based  
inverse scattering algorithms  
Sven Nordebo, Andreas Fhager, Mats Gustafsson, Mikael Persson

Datadriven efficient score tests for deconvolution hypotheses  
M A Langovoy

Individual articles are free for 30 days following their publication  
on the web.

This issue is available at: <http://www.iop.org/EJ/toc/0266-5611/24/2>

Submitted by: Laura A. Smith, Production Editor, Inverse Problems

-----  
From: Romas Baronas <romas.baronas@mif.vu.lt>  
Subject: Table of Contents, Nonlinear Analysis: Modelling and Control  
Date: Sat, 8 Mar 2008

Nonlinear Analysis: Modelling and Control 2008 Vol. 13, No. 1  
Table of Contents

Estimation of Convergence Rate in the Transfer Theorem for Maxima  
A. Aksomaitis.

Asymptotic Stability, Orbital Stability of Hopf-Bifurcating Periodic  
Solution of a Simple Three-Neuron Artificial Neural Network with  
Distributed Delay P.D. Gupta, N.C. Majee, A.B. Roy

Unsteady Mixed Convection Flow in the Stagnation Region of a Three Dimensional Body Embedded in a Porous Medium F.S. Ibrahim

Unsteady Laminar Free Convection from a Vertical Cone with Uniform Surface Heat Flux Bapuji Pullepu, K. Ekambavanan, A.J. Chamkha

Interpretable Nonlinear Model for Enterprise Bankruptcy Prediction O. Purvinis, R. Virbickaite, P. Sukys

Radiative Heat Transfer Flow of Micropolar Fluid with Variable Heat Flux in a Porous Medium M.M. Rahman, T. Sultana

Numerical Simulation of the Performance Characteristics of the Hybrid Closed Circuit Cooling Tower M.M.A. Sarker, E. Kim, C.G. Moon, J.I. Yoon

Chaotic Dynamics in a Three Species Aquatic Population Model with Holling Type II Functional Response R.K. Upadhyay

On the Probabilities of Correlated Defaults: a First Passage Time Approach M. Valuzis

A free on-line edition is available at:  
<http://www.lana.lt/journal/issues.php>

For a paper submission, please refer to <http://www.lana.lt/journal>

Submitted by: Dr. Romas Baronas, Journal Secretary,  
Nonlinear Analysis: Modelling and Control

----- end -----

## IPNet Digest Volume 15, Number 03 June 3, 2008

### Today's Editor:

Patricia K. Lamm, Michigan State University  
Zhewei Dai, Alma College

### Today's Topics:

Biomed. Eng. School -- Optimiz. & Inverse Probs in Electromagnetism  
SIAM Conference on Imaging Science  
School: Advanced Integral Equation Methods in Comp. Mechanics  
RICAM PostDoc Positions, incl. Inverse Problems and Imaging  
Professorship in Quantitative Biology, Vienna  
Now Online: Special Issues/Sections of Inverse Problems  
New Website: International Journal of Tomography & Statistics  
Table of Contents: Inverse Problems  
Table of Contents: J. of Inverse and Ill-posed Problems

### Submissions for IPNet Digest:

Mail to [ipnet-digest@math.msu.edu](mailto:ipnet-digest@math.msu.edu)

### Information about IPNet:

<http://www.math.msu.edu/ipnet>

-----  
From: "Brauer Hartmut Dr. TU Ilmenau" <[hartmut.brauer@tu-ilmenau.de](mailto:hartmut.brauer@tu-ilmenau.de)>  
Subject: OIPE 2008 - Summerschool on Biomedical Engineering  
Date: Wed, 28 May 2008

Dear Colleague,

We are happy to announce that the 3rd International Summerschool on Biomedical Engineering, organized by the Technical University Ilmenau and the Max-Planck-Institute for Human Cognitive and Brain Sciences Leipzig, will be held September 4-17 2008 at Weimar and Ilmenau.

This year's topic will be the reconstruction of the sources of physiological signals with special emphasis to electromagnetic signal of the brain and the heart. It aims at a thorough understanding of the underlying mechanisms of source reconstruction techniques and thus will develop a critical view on current applications and possible future developments. Source reconstruction is the key to understanding how the brain works on a millisecond scale and is used in areas like cognitive research, as well as in various clinical applications.

The didactic concept of the Summer Schools includes preparation of literature before the school actually starts, lectures, seminar work in small groups, panel discussions, practical exercises, and demonstrations.

The number of participants is restricted to 40 in order to provide an optimal mentoring. Moreover, the International Summer School is expected to facilitate the exchange of ideas on latest developments in the field.

As a special feature of this year's summer school a high level international conference (OIPE 2008) is included into the program.

The scientific supporting programme comprises visits at the competence centre for virtual reality, which operates the only combination of a

CAVE with a wave field synthesis system, and at the Biomagnetic Centre of the university clinic in Jena. Here we will also visit the world known Zeiss Planetarium. The social program further includes visits at the UNESCO World Heritage sites castle Wartburg in Eisenach and "Ensemble Classical Weimar" in Weimar. Sportive events are the hike at the Thuringian Forest and the "Kickelhahnlauf".

For further information, please visit our website

<http://wcms1.rz.tu-ilmenau.de/fakia/?id=6825>

Looking forward to welcoming you at our Summer School,

Jens Haueisen  
Thomas Knoesche

[Please consult the conference website for OIPE:

<http://www.OIPE2008.org/>

-Ed.]

-----  
From: Kirsten Wilden <Wilden@siam.org>  
Subject: SIAM Conference on Imaging Science (IS08)  
Date: Tue, 15 Apr 2008

Conference Name:  
SIAM Conference on Imaging Science (IS08), being held jointly with the  
2008 SIAM Annual Meeting

Location:  
Town and Country Resort & Convention Center, San Diego, California

Dates:  
July 7-9, 2008

Invited Speakers:

Joint Plenary Speaker  
Jean-Michel Morel, ENS Cachan, France

Invited Topical Speakers  
John Etgen, BP America  
Jeffrey Fessler, University of Michigan, Ann Arbor  
Mila Nikolova, Centre de Mathématiques et de Leurs Applications, France  
Lenny Rudin, Cognitech Inc.  
Lars Ulander, Swedish Defense Research Agency, Sweden  
Andrew Zisserman, University of Oxford, United Kingdom

++++  
Registration is Now Available!

Pre-Registration Deadline: June 9, 2008  
Hotel Reservation Deadline: June 9, 2008

Registration and the preliminary program for this conference are  
available at: <http://www.siam.org/meetings/is08/>

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For additional information, contact the SIAM Conference Department at [meetings@siam.org](mailto:meetings@siam.org).

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From: Marc Bonnet <[bonnet@lms.polytechnique.fr](mailto:bonnet@lms.polytechnique.fr)>  
Subject: CISM-IUTAM summer school "Advanced Integral Equation Methods in Computational Mechanics"  
Date: Mon, 14 Apr 2008

Dear Colleague,

This is a short announcement for:

CISM-IUTAM summer school "ADVANCED INTEGRAL EQUATION METHODS IN COMPUTATIONAL MECHANICS" (CISM, Udine, Italy, July 7-11, 2008).  
Coordinator: Marc Bonnet, Ecole Polytechnique, France  
([bonnet@lms.polytechnique.fr](mailto:bonnet@lms.polytechnique.fr))

For details, visit [www.cism.it](http://www.cism.it) and go to  
Activities --> Courses and other events --> Programme 2008

Please note that the geographical proximity of Udine to Venice, where WCCM 2008 will be held during the previous week, will greatly facilitate attendance by WCCM participants.

Please feel free to circulate this to colleagues and students.

Best wishes,  
Marc Bonnet

6th Intl. Conf. on Inverse Problems in Engineering: Theory and Practice (June 15-19, 2008): <http://www.icipe2008.ciril.fr>

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<http://www.lms.polytechnique.fr/users/bonnet/index.html>

-----  
From: "Prof. Heinz W. Engl" <[heinz.engl@univie.ac.at](mailto:heinz.engl@univie.ac.at)>  
Subject: RICAM PostDoc Positions, including Inverse Problems and Imaging  
Date: Fri, 16 May 2008

PostDoc Positions f/m at the  
Johann Radon Institute for Computational and Applied Mathematics  
(RICAM) of the Austrian Academy of Sciences, Linz, Austria

RICAM ([www.ricam.oeaw.ac.at](http://www.ricam.oeaw.ac.at)) is a well established mathematical research institute located on the campus of the Kepler University in Linz, Austria and has openings in the following groups:

- Mathematical Methods in Molecular and Systems Biology -- (new working group to be established in Vienna)
- Computational Methods for Direct Field Problems -- Prof. Langer
- Inverse Problems -- Prof. Engl
- Optimization and Control -- Prof. Kunisch
- Symbolic Computation -- Prof. Schicho
- Analysis of Partial Differential Equations -- Prof. Markowich,

Prof. Schmeiser  
- Mathematical Imaging -- Prof. Scherzer

Cooperation between groups is strongly encouraged.

PostDocs interested to work in one of these research areas are encouraged to send their application with personal and scientific data and a statement about scientific interests and achievements to the director, Prof. Heinz W. Engl at, [heinz.engl@oeaw.ac.at](mailto:heinz.engl@oeaw.ac.at) and the scientific group leader per e-mail. Further information concerning the working fields can be obtained from the group leaders:  
<http://www.ricam.oeaw.ac.at/research/>

For all positions a doctorate in mathematics or a closely related field is required. The working language is English. The positions are initially for up to three years, one renewal for three more years is possible depending on achievements.

The Austrian Academy of Sciences is an equal opportunity employer.

Submitted by:  
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-----  
From: "Prof. Heinz W. Engl" <[heinz.engl@univie.ac.at](mailto:heinz.engl@univie.ac.at)>  
Subject: Professorship in quantitative biology, Vienna  
Date: Mon, 19 May 2008

A joint search committee of the Medical University Vienna, University of Vienna, and the Veterinary University Vienna, invites applications for the position of a

Professor in Quantitative / Systems Biology at the Vienna Biocenter

Through financial support from the WWTF (Vienna Science & Technology Fund - further details at [www.wwtf.ac.at](http://www.wwtf.ac.at)), this professorship will be established in a cooperation of major Universities in Vienna for an initial period of 5 years, with the possibility to convert into a tenured position after that. The aim is to exploit innovative approaches in mathematical modelling and systems biology to uncover fundamental principles of complex biological systems. The Professor will be expected to interact closely with experimental groups at the partner institutions, and with the Center of Integrative Bioinformatics Vienna, located at the Vienna Biocenter. Potential

candidates should have a strong theoretical and mathematical background, as well as a proven track record of successful collaborations with experimental biologists. The Professor will be expected to emphasize research areas of emerging importance and use quantitative biological data to develop dynamic and predictive mathematical models to unravel principles and fundamental properties of biological systems in research areas including (but not limited to) infection biology, RNA biology, immunology, oncology, signaling and stress response in various model systems. Interested individuals, and in particular female scientists, are strongly encouraged to send by e-mail or courier their CV (maximum three pages), a 3 page statement of future research interests and a list of up to 10 relevant publications during the past 6 years to Karl Kuchler (Chair of the Search Committee - Medical University of Vienna, Max F. Perutz Laboratories, Campus Vienna Biocenter, A-1030 Vienna, Austria) at Karl.Kuchler@meduniwien.ac.at, by the deadline of June 30, 2008.

The Max F. Perutz Laboratories - [www.mfpl.ac.at](http://www.mfpl.ac.at) - at the Vienna Biocenter are a joint venture of the University of Vienna and the Medical University of Vienna to develop and foster excellence in biomedical research in Austria.

Submitted by:

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University of Vienna Phone:+43-(0)1-427710050  
Lueger-Ring 1  
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Oesterreich / Austria

and

Johann Radon Institute for Computational and Applied Mathematics (RICAM), Austrian Academy of Sciences, A-4040 Linz, Austria  
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<http://www.ricam.oeaw.ac.at>  
EMail: [heinz.engl@oeaw.ac.at](mailto:heinz.engl@oeaw.ac.at)

Mobile Phone: +43-(0)664-5209029

-----  
From: Zoe Crossman <[Zoe.Crossman@iop.org](mailto:Zoe.Crossman@iop.org)>  
Subject: Now Online: Inverse Problems: statistical and computational issues in inverse problems special section  
Date: Tue, 27 May 2008

Inverse Problems is pleased to announce that its latest special section, on statistical and computational issues in inverse problems, is now freely available online until 22 June 2008 at:  
<http://herald.iop.org/IPSPE2008IPNet/m103/cid//link/1647>

The section presents an overview of the current state of research in statistical and computational issues in inverse problems and was guest edited by L Tenorio, E Haber, W W Symes, P B Stark, D Cox and O Ghattas.

We are pleased to make the Guest Editors' introductory article and two articles, 'Smoothing noisy data via regularization: statistical perspectives' by Chong Gu and 'Fast denoising of surface meshes with

intrinsic texture' by H Huang and U Ascher, featured articles on the journal homepage; to read them for free, visit:  
<http://herald.iop.org/IPSPE2008FeaturedIPNet/m103/cid//link/1648>

We hope you enjoy reading these articles as much as we have.

Kate Watt  
Publisher, Inverse Problems  
[ip@iop.org](mailto:ip@iop.org)

-----  
From: isder\_ceser <[isder\\_ceser@yahoo.com](mailto:isder_ceser@yahoo.com)>  
Subject: International Journal of Tomography & Statistics new website  
Date: Mon, 28 Apr 2008

Dear Colleagues,

Greetings from "International Journal of Tomography & Statistics (IJTS)"

International Journal of Tomography & Statistics new website is:  
[www.ceser.res.in/ijts.html](http://www.ceser.res.in/ijts.html)

and for

International Journal of Ecology & Development (IJED)  
[www.ceser.res.in/ijed.html](http://www.ceser.res.in/ijed.html)

International Journal of Tomography & Statistics

The main aim of the International Journal of Tomography & Statistics (IJTS) is to publish refereed, well-written original research articles, and studies that describe the latest research and developments in computerized Tomography and Statistics. The IJTS is reviewed by "Zentralblatt fur Mathematik (Berlin, Germany)" which is the best in the math reviewing world, "Mathematical Review" (American Mathematical Society) etc.

Detailed instructions on how to prepare your manuscript are available at "Instructions for Author".

<http://www.isder.ceser.res.in/IJTS.html>

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From: Laura Smith <[Laura.Smith@iop.org](mailto:Laura.Smith@iop.org)>  
Subject: Table of Contents - Inverse Problems  
Date: Fri, 23 May 2008

Inverse Problems 2008 Vol.24, No.3  
Table of Contents

SPECIAL SECTION ON STATISTICAL AND COMPUTATIONAL ISSUES IN INVERSE PROBLEMS

Guest Editors' introduction to the special section on statistical and computational issues in inverse problems  
L Tenorio, E Haber, W W Symes, P B Stark, D Cox and O Ghattas

Smoothing noisy data via regularization: statistical perspectives  
Chong Gu

Fast denoising of surface meshes with intrinsic texture  
H Huang and U Ascher

Nonparametric statistical inverse problems L Cavalier

Residual periodograms for choosing regularization parameters for  
ill-posed problems Bert W Rust and Dianne P O'Leary

Strong robust generalized cross-validation for choosing the  
regularization parameter Mark A Lukas

Computational techniques for a quantum control problem with  $H^1$ -cost  
G von Winckel and A Borzì

Ill-posed medicine---an introduction to image registration  
Bernd Fischer and Jan Modersitzki

Statistical inference for inverse problems  
Nicolai Bissantz and Hajo Holzmann

A multilevel algorithm for inverse problems with elliptic PDE  
constraints George Biros and Gökhan Dogan

Adaptive finite element methods for the solution of inverse problems in  
optical tomography Wolfgang Bangerth and Amit Joshi

Resistivity imaging with controlled-source electromagnetic data: depth  
and data weighting Romain Plessix and W A Mulder

Hypermodels in the Bayesian imaging framework  
Daniela Calvetti and Erkki Somersalo

Generalizing resolution Philip B Stark

A Newton-CG method for large-scale three-dimensional elastic  
full-waveform seismic inversion  
I Epanomeritakis, Vasilios Ccelik, O Ghattas and J Bielak

Regularized reconstruction of water surfaces from noisy gradient  
information via plane-wave superposition  
Finbarr O'Sullivan, Jian Huang, Kingshuk Roy Choudhury,  
Guillaume Caulliez and Victor Shrira

An active-set equality constrained Newton solver with feasibility  
restoration for inverse coefficient problems in elliptic variational  
inequalities M Hintermüller

#### PAPERS

Fixed-point iterations in determining the Tikhonov regularization  
parameter Fernand S Viloche Bazán

The quasi-optimality criterion for classical inverse problems  
Frank Bauer and Stefan Kindermann

Numerical solution of an inverse 2D Cauchy problem connected with the  
Helmholtz equation T Wei, H H Qin and R Shi

Uniqueness in determining polyhedral sound-hard obstacles with a single

incoming wave Johannes Elschner and Masahiro Yamamoto

Imaging moving targets from scattered waves

Margaret Cheney and Brett Borden

Phase reconstruction by a multilevel iteratively regularized  
Gauss-Newton method Dirk Langemann and Manfred Tasche

A semismooth Newton method for Tikhonov functionals with sparsity  
constraints R Griesse and D A Lorenz

Enhancement of microwave tomography through the use of electrically  
conducting enclosures Colin Gilmore and Joe LoVetri

On the Volterra integral equation relating creep and relaxation  
R S Anderssen, A R Davies and F R de Hoog

The problem of polarization tomography: II Vladimir Sharafutdinov

Multi-frequency identification of defects in conducting media  
A Pirani, M Ricci, R Specogna, A Tamburrino and F Trevisan

The Boussinesq equation with self-consistent sources  
Hongxia Wu, Yunbo Zeng and Tianyou Fan

Electrical impedance tomography with resistor networks  
Liliana Borcea, Vladimir Druskin and Fernando Guevara Vasquez

A systematic linear space approach to solving partially described  
inverse eigenvalue problems Sau-Lon James Hu and Haujun Li

History matching of petroleum reservoirs using a level set technique  
Oliver Dorn and Rossmay Villegas

The study of an iterative method for the reconstruction of images  
corrupted by Poisson and Gaussian noise  
F Benvenuto, A La Camera, C Theys, A Ferrari, H Lant'eri and M Bertero

Source localization in ellipsoids by the best meromorphic approximation  
in planar sections  
Juliette Leblond, Cristina Paduret, St'ephane Rigat and Meriem Zghal

A global uniqueness for formally determined inverse electromagnetic  
obstacle scattering Hongyu Liu

An inverse adhesion problem for extracting interfacial pair potentials  
for the Al(0 0 1)/3C--SiC(0 0 1) interface  
Hanyue Zhao and Nanxian Chen

Restricted isometry properties and nonconvex compressive sensing  
Rick Chartrand and Valentina Staneva

A direct nonlinear inversion of primary wave data reflecting from  
extended, heterogeneous media Kristopher A Innanen

Inverse acoustic scattering by small-obstacle expansion of a misfit  
function Marc Bonnet

Individual articles are free for 30 days following their publication  
on the web.

This issue is available at: <http://www.iop.org/EJ/toc/0266-5611/24/3>

Submitted by: Laura A. Smith, Production Editor, Inverse Problems

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From: Albroscheit, Simon <Simon.Albroscheit@degruyter.com>  
Subject: TOC, J. Inverse and Ill-posed Problems 2008, issues 1, 2 and 3  
Date: Mon, 26 Apr 2008

Journal of Inverse and Ill-posed Problems 2008 Vol. 16 No. 1  
Table of Contents

Inverse electromagnetic scattering by a perfect conductor in a chiral environment C. Athanasiadis and E. Kardasi

Recovering a potential from Cauchy data in the two-dimensional case  
A. L. Bukhgeim

Solving constraint ill-posed problems using Ginzburg-Landau regularization functionals F. Frühauf and H. Grossauer

An inverse problem of identifying source coefficient in solute transportation Li Gongsheng, Yao De and Yang Fugui

Boundary integral equations for acoustical inverse sound-soft scattering  
O. Ivanyshyn and B. T. Johansson

A note on logarithmic convergence rates for nonlinear Tikhonov regularization B. Kaltenbacher

Analytic approximation with real constraints, with applications to inverse diffusion problems  
J. Leblond, J.-P. Marmorat and J. R. Partington

This issue is available at: <http://dx.doi.org/10.1515/JIIP>

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Journal of Inverse and Ill-posed Problems 2008 Vol. 16 No. 2  
Table of Contents

The multidimensional refinement indicators algorithm for optimal parameterization H. Ben Ameer, F. Clément, P. Weis and G. Chavent

Inverse problem for the Schrödinger operator in an unbounded strip  
L. Cardoulis, M. Cristofol and P. Gaitan

Identification of two memory kernels in a fully hyperbolic phase-field system A. Lorenzi and E. Rocca

A priori weighting for parameter estimation J. L. Mead

On reduction of informational expenses in solving ill-posed problems with not exactly given input data S. G. Solodky and E. V. Lebedeva

This issue is available at: <http://dx.doi.org/10.1515/JIIP>

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Journal of Inverse and Ill-posed Problems 2008 Vol. 16 No. 3  
Table of Contents

Inverse problem for parabolic high-order equations L. F. Borisova

Multiscale Lavrentiev method for systems of Volterra equations of the first kind A. Favini and L. Pandolfi

Recovering memory kernels in parabolic transmission problems  
J. Janno and A. Lorenzi

Impact of conditional stability: Convergence rates for general linear regularization methods S. I. Kabanikhin and M. Schieck

Differential identities and uniqueness theorem in inverse problem for the Boltzmann-Vlasov equation M. V. Neshchadim

Inverse problem with unknown composite external action for hyperbolic equations R. R. Safiullova

This issue is available at: <http://dx.doi.org/10.1515/JIIP>

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----- end -----

# IPNet Digest Volume 15, Number 04 December 26, 2008

## Today's Editors:

Patricia K. Lamm, Michigan State University  
Cara D. Brooks, Rose Hulman Institute of Technology

## Today's Topics:

The Return of the IPNet  
Conference: 2009 Inverse Problems Symposium  
ASME Congress Topic: Inverse Problems & Opt. in Heat Transfer  
Conference: Electrical Impedance Tomography + Electromag. Inv. Probs.  
Conference: Scale Space & Variational Methods in Computer Vision  
Conference: Mathematical and Numerical Aspects of Waves  
Conference: Chaotic Modeling and Simulation  
SIAM Conference: Math./Computational Issues in the Geosciences  
SIAM Conference: Mathematics for Industry  
SIAM Conference: Applications of Dynamical Systems  
SIAM/ACM Conference: Geometric and Physical Modeling  
ACM/SIAM Symposium: Discrete Algorithms  
Calderon Prize: Contributions in the Field of Inverse Problems  
GREAT08 PASCAL Challenge: An Inverse Problem in Cosmology  
New Google Group: Inverse and Ill-posed Problems  
New Society: Inverse Problems in Science and Engineering  
PhD position: Electromagnetics Group, Ghent University  
Postdoctoral Position: Identification of Mathematical Models  
Research Associate: Medical Image Reconstruction  
Online: Inverse Problems Newsletter  
Online: IPIA & 6ICIPE Inverse Problems Conf. Proceedings  
Online: International Journal of Imaging  
CFP: International Journal of Tomography & Statistics  
CFP: International Journal of Mathematics and Computation  
Table of Contents: Inverse Problems  
Table of Contents: Journal of Inverse and Ill-posed Problems  
Table of Contents: Inverse Problems in Science and Engineering  
Table of Contents: Applicable Analysis, Inverse Problems Issue  
Table of Contents: Mathematics of Control, Signals, & Systems  
Table of Contents: Nonlinear Analysis, Modelling and Control

## Submissions for IPNet Digest:

Mail to [ipnet-digest@math.msu.edu](mailto:ipnet-digest@math.msu.edu)

## Information about IPNet:

<http://www.math.msu.edu/ipnet>

-----  
Subject: Return of the IPNet  
From: "Lamm, Patricia" <[lamm@math.msu.edu](mailto:lamm@math.msu.edu)>  
Date: Fri, 26 Dec 2008

As you may have noticed, the IPNet Digest has been on 'sick leave' for several months, due to the loss of a computer server and various other calamities.

A new IPNet server is now in place and all the usual functions of the IPNet have been restored. At the usual website (see above), one can again subscribe to the IPNet, make subscription changes or deletions, and read archived issues of the IPNet Digest.

Unfortunately several of the conference announcements and job postings submitted to the IPNet in the last few months had deadlines which have already passed. Despite this fact, we are including such news items below in hopes that the information will still be of use to some. You may also want to contact the appropriate contact person to see if passed deadlines have some flexibility to them.

Best wishes for the new year, the 16th year of the IPNet and one in which the Digest should appear more regularly.

-Patricia (Patti) Lamm

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Subject: Inverse Problems Symposium 2009  
From: jamesverebeck@comcast.net  
Date: Fri, 12 Dec 2008

Inverse Problems Symposium

(This will be the 22nd in a series of conferences that have been held at MSU and in the world including England, Brazil and France.)

Abstract submission is open for the 2009 Inverse Problems Symposium that will be held May 31-June 2, 2009 at Michigan State University. We are interested in a wide range of topics in engineering, agriculture, natural sciences, mathematics, statistics, etc. You are invited to submit an abstract for your oral presentation. A written paper is not required and the papers will not be subject to copyright. The website is [www.inverseproblems2009.org](http://www.inverseproblems2009.org).

The overall schedule will be:

Sunday May 31st: 3:30pm-5:30pm Kevin Dowding, Sandia National Labs  
Tutorial on Uncertainty and Sensitivity Coefficients  
Evening: Informal dinner on our own

Monday, June 1: 8:00-17:00 Oral presentations, Lunch provided  
19:00 Symposium Banquet

Tuesday, June 2: 8:00-17:00 Oral presentations, Lunch provided  
17:00 Finish

Registration will begin after the new year.

Best regards,  
Kirk Dolan (Conference Chairperson) and James Beck (Honorary Chairperson)

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Subject: Inverse Problems and Optimization in Heat Transfer  
From: Kyle Daun <kjdaun@mecheng1.uwaterloo.ca>  
Date: Wed, 3 Dec 2008

Call for Papers: Inverse Problems and Optimization in Heat Transfer  
2009 ASME International Mechanical Engineering Congress and Exposition  
November 13-19, 2009, Lake Buena Vista, Florida

Objective:

The 2009 ASME IMECE is a unique opportunity to expand international cooperation, understanding, and to promote multidisciplinary research in heat transfer. The ASME Heat Transfer Division K-20 and K-6 committees invite authors to participate in the topical area of Inverse Problems and Optimization in Heat Transfer.

Scope:

Papers are solicited from all areas of inverse problems in heat transfer, with a focus on inverse and optimal design of heat transfer systems and inverse analysis of experimental data. Topics of interest include:

- \* Mathematical aspects and techniques for inverse analysis and opt.
- \* Optimal design of heat transfer devices
- \* Inverse multi-mode heat transfer problems
- \* Boundary and initial condition reconstruction
- \* Parameter estimation
- \* Imaging and tomography
- \* Remote sensing
- \* Design of experiments

Venue:

The conference will be held at the Walt Disney World Swan and Dolphin Resort, near Orlando, Florida.

Abstract/Deadline:

Submit your 400 word abstract to  
<http://www.asmeconferences.org/Congress09> by March 2nd, 2009

Session Organizers:

Keith Woodbury (K-20)  
University of Alabama  
woodbury@me.ua.edu

Ashley Emery (K-20)  
University of Washington  
emery@u.washington.edu

Kyle Daun (K-6)  
University of Waterloo  
kjdaun@mme.uwaterloo.ca

Matthew Jones (K-6)  
Brigham Young University  
mrjones@byu.edu

Kyle J. Daun, Ph. D.  
Assistant Professor  
Department of Mechanical and Mechatronics Engineering  
University of Waterloo

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Subject: EIT 2009 and EM IP Workshop  
From: Bill Lionheart <[bill.lionheart@manchester.ac.uk](mailto:bill.lionheart@manchester.ac.uk)>  
Date: Thu, 07 Aug 2008

10th International Conference on Biomedical Applications of Electrical  
Impedance Tomography (EIT 2009)  
16th-19th June 2009

combined with  
Workshop on Electromagnetic Inverse Problems  
15th-18th June 2009  
School of Mathematics, The University of Manchester, UK

The International Steering Committee on Electrical Impedance Tomography and the Impedance Imaging Research Centre, Korea, are pleased to announce that the 10th International Conference on Biomedical Applications of Electrical Impedance Tomography (EIT 2009) will take place on 16th-19th June 2009 at the University of Manchester. As usual the conference focuses on medical applications of Electrical Impedance Tomography, Magnetic Induction Tomography and Magnetic Resonance Electrical Impedance Tomography

On Thursday June 18th there will be a special session "EIT lung imaging - on the way to a clinical use" organised by Inez Frerichs

Further details will be announced shortly.

Bill Lionheart (conference chair) Eung-je Woo (conference co-chair)  
Richard Bayford (conference co-chair)

We would also like to announce that the usual Biomedical EIT meeting will be organised in conjunction with a workshop on electromagnetic inverse problems, which is intended to bring together specialists in the mathematics of EIT and related inverse problems with those working not only on medical applications but also other areas including geophysics, process monitoring, archaeology, landmine detection and non-destructive testing. We will also aim to promote collaboration with those working in electrosensing in the animal kingdom (notably weakly electric fish).

The provisional list of speakers includes Gunther Uhlmann, Habib Ammari and Mike Nelson, and again further details will be forthcoming. Oliver Dorn (workshop chair), Bill Lionheart (workshop cochair).

For details see <http://www.maths.manchester.ac.uk/eit2009/>

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Subject: Conf. on Scale Space & Variational Methods in Computer Vision  
From: "mariul@simula.no" <mariul@simula.no>  
Date: Wed, 11 Jun 2008

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****                FIRST ANNOUNCEMENT                ****
****                Second International Conference on    ****
****                Scale Space and Variational Methods  ****
****                in Computer Vision                   ****
****                Voss, Norway                         ****
****                June 1 - June 5, 2009                ****
****                http://www.math.uio.no/conference/ssvm2009/ ****
****                email: ssvm-2009@math.uio.no         ****
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This international conference is a result of merging the Scale Space conferences and the Variational Level Set Methods conference and is the second in the series. The conference attempts to bring together two different communities with joint research interests: the one on scale space analysis and the one on variational, geometric and level set methods and their applications in image interpretation and understanding. Such a conference serves several purposes: International researchers and students may be exposed to state-of-the-art research on mathematical, physical and computational

aspects of imaging, computer vision, graphics and inverse problems with applications.

GENERAL CHAIR:

Xue-Cheng Tai, University of Bergen, Norway.

SCIENTIFIC COMMITTEE:

Alfred M. Bruckstein, Technion IIT, Israel  
Tony F. Chan, University of California at LA, USA  
Mads Nielsen, University of Copenhagen, Denmark  
Stanley Osher, University of California at LA, USA  
Nikos Paragios, Ecole Centrale de Paris, France  
Bart M. ter Haar Romeny, Eindhoven University of Technology, Netherlands  
Christoph Schnoerr, University of Heidelberg, Germany  
Fiorella Sgalarri, University of Bologna, Italy  
Joachim Weickert, Saarland University, Germany

CONFERENCE TOPICS:

This conference covers areas that include computer vision, image processing and analysis, signal processing, mathematical imaging and numerical analysis. Industrial applications related to medical imaging, visualization, scientific computing and inverse problems are all suited for this conference.

PROCEEDINGS

As for the first conference in the series, the proceedings will be published in Springer's Lecture Notes in Computer Science series. All papers will undergo a thorough refereeing process and the proceedings will be available at the conference.

DEADLINES

Abstract submission.....	8th October	2008
Full paper submission.....	15th October	2008
Notification of acceptance....	15th January	2009
Deadline for final paper.....	15th February	2009
Early registration.....	15th March	2009

CONFERENCE LOCATION

The conference will take place at Fleischer's Hotel in Voss, Norway. Voss is a very beautiful town surrounded by mountains in a very quiet and relaxing environment. It can be reached by train or bus, most easily from Bergen, but also from Oslo.

MORE INFORMATION

Details on the conference proceedings, contributed lectures, and other information about the conference, will be made available on the conference website. Submissions for the conference will be through the webpage. For inquiries, please use email: [ssvm-2009@math.uio.no](mailto:ssvm-2009@math.uio.no).

We look forward to seeing you in Voss, Norway, in June 2009.

ORGANIZERS

Knut-Andreas Lie, Marius Lysaker, Knut Morken and Xue-Cheng Tai

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Subject: Waves 2009, Second Announcement and Call for Papers  
From: Marc Bonnet <[bonnet@lms.polytechnique.fr](mailto:bonnet@lms.polytechnique.fr)>  
Date: Tue, 23 Sep 2008

Dear Colleagues

The 9th International Conference on Mathematical and Numerical Aspects of Waves (Waves 2009) will be held at Pau, France, organised with INRIA from 15-19 June 2009.

This conference is one of the main venues where significant advances in the analysis and computational modeling of wave phenomena and exciting new applications are presented.

Invited Speakers:

Abderrahmane Bendali (MIP, Cerfacs, France)  
Houssem Haddar (Inria, France)  
Jan Hesthaven (Brown University, USA)  
Ralf Hiptmair (ETH Zürich, Switzerland)  
Marteen de Hoop (Purdue University, USA)  
Jeroen Tromp (Princeton, USA)  
Luis Vega (University of the Basque Country, Spain)

We cordially invite you to submit a paper for presentation at the conference via the web site on or before January 21th, 2009, the papers taking the form of a 2 page short paper/extended abstract, to be published in the conference proceedings. For further instructions and the required latex style file, please see <https://waves-2009.bordeaux.inria.fr>

We would appreciate it if you could bring this notice to the attention of relevant colleagues and students.

We hope very much to have your company at Waves 2009.

Yours sincerely,  
The organizing committee

Submitted by:

Marc BONNET -- CNRS (directeur de recherche) et Ecole Polytechnique  
Tel: +33-1-69335746 | Laboratoire de Mecanique des Solides  
Fax: +33-1-69333026 | Ecole Polytechnique  
bonnet@lms.polytechnique.fr | 91128 PALAISEAU cedex, FRANCE  
<http://www.lms.polytechnique.fr/users/bonnet/index.html>

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Subject: 2nd Chaotic Modeling and Simulation International Conference  
From: Christos Skiadas <skiadas@chaos2009.net>  
Date: Sat, 27 Sep 2008

Dear Colleague,

This is a call for Abstract/Paper submission to the forthcoming Nonlinear Conference titled:

2nd Chaotic Modeling and Simulation International Conference (CHAOS2009), Chania, Crete, Greece, June 1-5, 2009.

The forthcoming International Conference (Chaos2009) on Chaotic Modeling, Simulation and Applications will take place at the MAICH Conference Centre, Chania, Crete, Greece (June 1-5, 2009).

The general topics and the special sessions proposed for the Conference (Chaos2009) include but are not limited to:

Chaos and Nonlinear Dynamics, Stochastic Chaos, Chemical Chaos, Data Analysis and Chaos, Hydrodynamics, Turbulence and Plasmas, Optics and Chaos, Chaotic Oscillations and Circuits, Chaos in Climate Dynamics, Geophysical Flows, Biology and Chaos, Neurophysiology and Chaos, Hamiltonian Systems, Chaos in Astronomy and Astrophysics, Chaos and Solitons, Micro- and Nano- Electro-Mechanical Systems, Neural Networks and Chaos, Ecology and Economy.

For more information and submission details please visit the conference website at: <http://www.chaos2009.net>

Kind regards

Christos H. Skiadas  
Conference Chair  
Data Analysis and Forecasting Laboratory  
Technical University of Crete  
Chania, Crete, Greece  
[skiadas@chaos2009.net](mailto:skiadas@chaos2009.net)

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Subject: SIAM Conf. on Math. & Computational Issues in the Geosciences  
From: "Nicole C. Jorlett" <[Jorlett@siam.org](mailto:Jorlett@siam.org)>  
Date: Fri, 19 Sep 2008

Conference Name: SIAM Conference on Mathematical & Computational Issues in the Geosciences - Call for Papers Now Available!

Location: Leipziger Kubus Conference Center, Helmholtz - Centre for Environmental Research - UFZ, Leipzig, Germany  
Dates: June 15 - 18, 2009

Invited Speakers  
Martin Blunt, Imperial College London, United Kingdom  
Chris Farmer, Schlumberger and University of Oxford, United Kingdom  
Rupert Klein, Potsdam Institute for Climate Impact Research and Free University of Berlin, Germany  
Rosemary Knight, Stanford University, USA  
Peter Lemke, University of Bremen, Germany  
Barbara Romanowicz, University of California, Berkeley, USA  
Joannes J. Westerink, University of Notre Dame, USA

The Call for Papers for this conference is now available. Please visit <http://www.siam.org/meetings/g09/index.php> for more information.

**\*\*Deadlines\*\***

November 14, 2008: Minisymposium proposals  
December 15, 2008: Abstracts for contributed and minisymposium speakers

For additional information, contact SIAM Conference Department at [meetings@siam.org](mailto:meetings@siam.org).

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Subject: SIAM Conference on Mathematics for Industry  
From: Kirsten Wilden <[Wilden@siam.org](mailto:Wilden@siam.org)>  
Date: Mon, 8 Dec 2008

SIAM Conference on Mathematics for Industry: Challenges & Frontiers  
(MI09)  
CFP Deadlines

The 2009 SIAM/ACM Joint Conference on Geometric and Physical Modeling will precede this meeting at the same location from October 5-8, 2009.

Conference Name: SIAM Conference on Mathematics for Industry: Challenges and Frontiers (MI09)

Location: Hilton San Francisco Financial District, San Francisco, CA

Dates: October 9-11, 2009

Plenary Speakers (partial list):

Robert Almgren, Courant Institute of Math. Sciences, N. Y. University  
David R. Ferguson, Access Analytics  
Kenneth Fordyce, IBM Systems and Technology Group

The Call for Presentations for this conference is available at:  
<http://www.siam.org/meetings/mi09/>

**\*\*Deadlines\*\***

SUBMISSION DEADLINES

March 5, 2009: Minisymposium proposals

April 2, 2009: Abstracts for contributed and minisymposium speakers

PROCEEDINGS DEADLINES

See <http://www.siam.org/meetings/mi09/proceedings.php> for additional information.

PRE-REGISTRATION DEADLINE

September 7, 2009

HOTEL RESERVATION DEADLINE

September 7, 2009

For additional information, contact SIAM Conference Department at [meetings@siam.org](mailto:meetings@siam.org).

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Subject: SIAM Conference on Applications of Dynamical Systems  
From: Kirsten Wilden [[Wilden@siam.org](mailto:Wilden@siam.org)]  
Sent: Thursday, July 24, 2008 2:51 PM

Conference Name: SIAM Conference on Applications of Dynamical Systems

Location: Snowbird Ski and Summer Resort, Snowbird, Utah

Dates: May 17-21, 2009

Invited Speakers:

Frank Allgöwer, Universität Stuttgart, Germany  
John Bush, Massachusetts Institute of Technology  
Henk Dijkstra, Utrecht University, The Netherlands  
Ute Ebert, Centrum voor Wiskunde en Informatica (CWI), The Netherlands  
Robert Ghrist, University of Pennsylvania  
Alain Goriely, University of Arizona  
Rachel Kuske, University of British Columbia, Canada

Ian Melbourne, University of Surrey, United Kingdom  
Igor Mezic, University of California, Santa Barbara  
Tere M. Seara, Universitat Politecnica de Catalunya, Spain

The Call for Presentations for this conference is available at:  
<http://www.siam.org/meetings/ds09/>

**\*\*Deadlines\*\***

October 14, 2008 EDT: Minisymposium proposals  
November 11, 2008 EST: Abstracts for contributed and minisymposium speakers

For additional information, contact the SIAM Conference Department at [meetings@siam.org](mailto:meetings@siam.org).

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Subject: SIAM/ACM Joint Conf. on Geometric and Physical Modeling  
From: Kirsten Wilden <[Wilden@siam.org](mailto:Wilden@siam.org)>  
Date: Mon, 15 Dec 2008 08:51:37 -0500

CALL FOR CONTRIBUTIONS

2009 SIAM/ACM JOINT CONFERENCE ON GEOMETRIC AND PHYSICAL MODELING  
incorporating the 2009 SIAM Conference on Geometric Design and the  
2009 ACM Symposium on Solid and Physical Modeling

October 5-8, 2009  
San Francisco, California, USA  
Hilton San Francisco Financial District

Conference website: <http://www.siam.org/meetings/gdspm09/>

The 2009 SIAM/ACM Joint Conference on Geometric and Physical Modeling seeks high quality, original research contributions that strive to advance all aspects of geometric and physical modeling, and their application in all sorts of areas. A shared objective of the SIAM GD and ACM SPM communities is to highlight work of the highest quality on the problems of greatest relevance to industry and science.

Submissions are welcomed on any related topics, including, but not limited to the following:

- \* Algebraic and differential geometry
- \* Computational geometry and topology
- \* Curves and surfaces
- \* Geometric and topological representations
- \* Heterogeneous models for physical objects and properties
- \* Geometry generation, processing, compression, and transmission
- \* Reconstruction of surfaces and solids from discrete data
- \* Shape modeling, synthesis, and analysis
- \* Geometric constraint solving
- \* Physics-based modeling
- \* Conceptual design
- \* Product and assembly modeling
- \* Feature modeling and recognition
- \* Dimensioning and tolerancing
- \* Simulation and optimization
- \* Product data exchange, standards, and interoperability
- \* Collaborative and distributed design

- \* Haptic and other user interfaces for 3D design

Applications:

- \* Computer-aided design, engineering, and manufacturing
- \* Robotics
- \* Computer graphics, visualization, and animation
- \* Virtual environments and prototypes
- \* Computer vision and image processing
- \* Biomedical and biochemical applications
- \* Geophysical applications
- \* Digital entertainment applications

SUBMISSION DEADLINES

Abstract submissions for proceedings: March 1, 2009 (required to expedite the review process)

Full paper submissions for proceedings: March 16, 2009

Minisymposia: May 15, 2009

Contributed talks/posters: May 15, 2009

For details on the different types of contributions and the submission process, please refer to the conference website:

<http://www.siam.org/meetings/gdspm09/>

[This news item has been edited for reasons of length. Please consult the conference website for more information. -Ed.]

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Subject: ACM-SIAM Symposium on Discrete Algorithms

From: Kirsten Wilden <Wilden@siam.org>

Date: Mon, 27 Oct 2008

Conference Name:

ACM-SIAM Symposium on Discrete Algorithms (SODA09)

Location:

New York Marriott Downtown, New York, New York

Dates:

January 4-6, 2009

Invited Speakers:

Michael I. Jordan, University of California at Berkeley

Yuval Peres, Microsoft Research

Volker Strassen, University of Konstanz, Germany

Registration is Now Available!

Pre-Registration Deadline: Monday, December 1, 2008

Hotel Reservation Deadline: Monday, December 1, 2008

Registration and the preliminary program for this conference are available at: <http://www.siam.org/meetings/da09/>

For additional information, contact the SIAM Conference Department at [meetings@siam.org](mailto:meetings@siam.org).

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Subject: Calderon Prize in the Field of Inverse Problems

From: "Matti J. Lassas" <mjlassas@math.tkk.fi>  
Date: Sat, 13 Dec 2008

The announcement of the prize:

Calderon Prize 2009

Following its initiation in 2007, the Calderon Prize will be awarded again in 2009, to a researcher under the age of 40 who has made distinguished contributions to the field of inverse problems. The Inverse Problems International Association (IPIA) will present the award at the Applied Inverse Problems AIP 2009 Conference to be held in Vienna, Austria, July 20-24, 2009. The award will include a certificate, a prize of 500 USD, and an invitation to give a plenary lecture at the conference. Expenses for accomodation during the conference and a reimbursement towards the travel expenses to Vienna will be provided.

All senior reseachers working on inverse problems are welcome to send nominations for the prize winner to the Calderon prize committee. Besides a nomination letter, please include a two page CV of the nominee and a complete list of publications. At most two additional supporting letters can be included. The Calderon Prize Committee can also solicit nominations. Nominations should be sent to Calderon Prize Committee by April 30, 2009, at the e-mail address

[calderon-prize@inverse-problems.net](mailto:calderon-prize@inverse-problems.net)

Inquiries should be also be addressed to the same address.

More information related to the prize can be found at the www-page

<http://www.inverse-problems.net/calderon-prize/>

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Subject: GREAT08 PASCAL Challenge - an inverse problem in cosmology  
From: Sarah Bridle <sarah@sarahbridle.net>  
Date: Wed, 26 Nov 2008

We invite you to participate in the GRavitational lEnsing Accuracy Testing 2008 (GREAT08) PASCAL Challenge.

The GREAT08 Challenge is an image analysis competition for gravitational lensing and cosmology, aimed at experts in statistical problems (non-astronomers). The competition runs until 30 April 2009.

Please find more information at the challenge website <http://www.great08challenge.info> and in the challenge handbook <http://arxiv.org/abs/0802.1214> (accepted in the Annals of Applied Statistics), the abstract of which is copied below.

-Sarah Bridle, on behalf of the GREAT08 Team

The GRavitational lEnsing Accuracy Testing 2008 (GREAT08) Challenge focuses on a problem that is of crucial importance for future observations in cosmology. The shapes of distant galaxies can be used to determine the properties of dark energy and the nature of gravity, because light from those galaxies is bent by gravity from the intervening dark matter. The observed galaxy images appear distorted, although only slightly, and their shapes must be precisely

disentangled from the effects of pixelisation, convolution and noise. The worldwide gravitational lensing community has made significant progress in techniques to measure these distortions via the Shear TEsting Program (STEP). Via STEP, we have run challenges within our own community, and come to recognise that this particular image analysis problem is ideally matched to experts in statistical inference, inverse problems and computational learning. Thus, in order to continue the progress seen in recent years, we are seeking an infusion of new ideas from these communities. This document details the GREAT08 Challenge for potential participants

Update on 12/23/08:

The GREAT08 mid-Challenge Workshop  
2pm (GMT) Monday 5th January

E7, Dept of Physics and Astronomy, University College London  
or by video/teleconference

1pm Lunch / testing the videoconference connections  
2pm Introduction to the GREAT08 Challenge for newcomers  
2.30pm Feedback/questions/comments from GREAT08 participants  
3pm Coffee break  
3.30pm The future of GREAT08  
4pm GREAT09

Please email questions at [great08challenge.info](mailto:great08challenge.info) for videoconference connection details and/or directions to UCL, or to volunteer a contribution.

Submitted by: Sarah Bridle, Reader in the Department of Physics and Astronomy,  
University College London  
[www.sarahbridle.net](http://www.sarahbridle.net)

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Subject: Inverse and Ill-posed Problems Google Group  
Mon, 4 Aug 2008 13:41:35

Dear colleague,

I'd like to invite you to public(open) discussion of Inverse and Ill-posed problems at google groups

<http://groups.google.com/group/inverse-and-ill-posed-problems>

It includes people from academia and industry and delivers fresh information on latest trends, innovations and events in domain of inverse and ill-posed problems.

You can ask questions and exchange opinions on all range of topics, covering full spectre of available specialists in the area. This also allows you to polish your ideas, before presenting it to target audience.

best regards,  
Khazret Sapenov

Here is the group's description:

Conversation is encouraged and expected. However, moderation of comments is necessary to prevent spam, personal attacks, profanity and off-topic commentary. To join the group and be able to post messages, write to join.  
inverse.problems@gmail.com

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Subject: Multidisciplinary Int'l Soc. for Inverse Problems in Science and Engineering  
From: IPSES <ipses@mecanica.coppe.ufrj.br>  
Date: Fri, 25 Jul 2008

Second Invitation to Join a  
Multidisciplinary International Society for  
Inverse Problems in Science and Engineering

Dear Colleagues:

If you have an interest in the general field of inverse problems and have not already joined this professional society, please join now by registering your membership on this website:

<http://www.IPSESociety.org>

This is the second and last general invitation to register as a member of this professional society because only registered members will be able to vote on the final name of the society, its bylaws, officers, annual membership dues/subscription to our journal, meetings, etc. You can register at any time, but this voting will start on July 28, 2008 and it will be available to registered members only until August 5, 2008.`

The idea of creating an international society in the general field of inverse problems is at least a decade old. A consensus based on inputs provided by several prominent colleagues is that the time for the creation of such a society has arrived. Thus, we have created an international society of professionals working on the multidisciplinary aspects of inverse problems. Several national inverse problems societies have already been created, and one international association was recently formed specifically to serve the mathematical inverse problems community.

The objective of this new society is to be truly multidisciplinary and international. This society should bring together researchers and practitioners working on all aspects of inverse problems in diverse areas, such as engineering, physics, chemistry, medicine, biology, mathematics, geology, meteorology, nanotechnology, finance, and emerging fields.

One major benefit for the members of this society will be an electronic subscription to the journal Inverse Problems in Science and Engineering (IPSE). The annual subscription will be fully covered by an annual membership fee of approximately fifty US dollars. In addition, a regular quarterly electronic newsletter will be available to all members informing them of all pertinent scientific events, funding opportunities, new research trends, jobs, scholarships, etc.

This multidisciplinary international society serves as an overall forum that will institute an international conference to be held

periodically moving its location to different continents. This international society will not interfere with the existing or possible future national, regional and disciplinary societies. All existing and possible new conferences, symposia and workshops on any aspects of the inverse problems could thus continue to be held without interruption.

If you are already a member of any national, regional or international societies dealing with inverse problems, this should not preclude you from becoming a member of this new society.

This international society will be legally registered as a nonprofit organization. Bylaws of this society will be similar to the bylaws of several recognized professional societies.

All discussions and voting will be performed via internet in the most democratic manner by anyone who joins this multidisciplinary society. This internet based voting will include the name of the society, details of its proposed bylaws, and nominations and elections of the society's initial leadership. The voting on these issues will be conducted this July.

If you have received this message more than one time or if you want your name to be taken off this mailing list, please send your e-mail message to [membership@ipsesociety.org](mailto:membership@ipsesociety.org).

George S. Dulikravich, Helcio R. B. Orlande, Marcelo J. Colaco  
(on behalf of the steering committee for the new society)

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Subject: PhD position in Electromagnetics Group, Ghent University  
From: Ann Franchois <[Ann.Franchois@ugent.be](mailto:Ann.Franchois@ugent.be)>  
Date: Thu, 18 Sep 2008

Ph.D. position (4 years) at Electromagnetics Group, Ghent University, Ghent, Belgium.

Topic: Scattering-type scanning near-field mm-wave microscope

Millimeter- waves (30GHz - 300GHz) provide unique opportunities for the development of novel applications in active near-field imaging of microscopic objects: there are plenty of situations where microscopic objects cannot be visualized with the more classic intervals (visible, UV, Infra Red), when they are covered with a material that is non penetrable in these intervals, while it is transparent to mm-waves.

The Electromagnetics (EM) Group of the Department of Information Technology at Ghent University, Belgium, is involved in a research project which aims at developing a near-field mm-wave microscope attaining super resolution. This project comprises the design and modeling of advanced micro-probes, research into original modulation techniques and the development of inverse scattering imaging techniques. The EM Group is responsible for developing the numerical electromagnetic models and image reconstruction techniques, topics in which the Group has an internationally recognized expertise, in close interaction with the hardware development research partner.

In this framework a fully paid 4 year Ph.D. position is being offered. Candidates should have a background in applied physics or electrical engineering, be interested in computational electromagnetics and imaging and demonstrate or develop programming skills.

If you are interested in this position please send your detailed curriculum vitae electronically to:

Ann Franchois  
Electromagnetics Group  
Department of Information Technology  
Ghent University  
Sint-Pietersnieuwstraat, 41  
B-9000, Gent, Belgium  
email: ann.franchois@intec.ugent.be  
tel.: +32-3-775 69 66  
URL: <http://emweb.intec.ugent.be/welcome.html>

-----  
Subject: Open postdoctoral position  
From: Rainer Kress <kress@math.uni-goettingen.de>  
Date: Mon, 02 Sep 2008

Open postdoctoral position

The Faculty of Mathematics at the University of Göttingen in 2004 has established a PhD program on Identification in Mathematical Models: Synergy of Stochastic and Numerical Methods.

This research training group (Graduiertenkolleg) is supported by the Deutsche Forschungsgemeinschaft (DFG). From January 1st, 2009, a two-year postdoctoral research position is available, subject to the final approval of the extension of the PhD programm by the Deutsche Forschungsgemeinschaft.

The research program includes statistical inverse problems in imaging and in biometrics, kernel based and robust identification methods and identification problems in partial differential equations. The topics cover a broad range connecting theoretical mathematical problems, application relevant problems from numerical analysis and statistics, and interdisciplinary projects in collaboration with members of other sciences. Further information on the research and teaching program and, in particular, on the participating research groups can be found on <http://www.num.math.uni-goettingen.de/gk>

The University of Göttingen is aiming at increasing the portion of women among the young researchers.

Application should be send before October 31st, 2008, to the director of the program,  
Prof. Dr. Rainer Kress  
Institut für Numerische und Angewandte Mathematik  
Georg-August-Universität Göttingen  
Lotzestr. 16-18, 37083 Göttingen.

In addition to the curriculum vitae, copies of relevant academic transcripts or university degrees and two letters of recommendation, the applications should contain specifications on the intended direction of research within



Date: Thu, 9 Oct 2008

Subject: Inverse Problems 2008 Newsletter

Text: Inverse Problems has enjoyed many exciting developments recently, including the publication of Special Sections, Topical Reviews and the 2007 Editorial Board Highlights, as well as achieving an impressive increase in impact factor. We also have some interesting plans to look forward to, including the increase to monthly publication in 2009 which coincides with the journal's 25th year of publication!

To find out more about all of the journal's developments, read our online newsletter here:

<http://herald.iop.org/IPNewsletter2008IPNet/m128/cid//link/2025>

Kate Watt  
Publisher  
Inverse Problems

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Subject: Now online: open access inverse problems conference proceedings  
From: Zoe Crossman <Zoe.Crossman@iop.org>  
Date: Mon, 1 Dec 2008

Journal of Physics: Conference Series is pleased to announce the publication of two inverse problems conference proceedings (both available for free permanently):

First International Congress of the International Association of Inverse Problems (IPIA): Applied Inverse Problems 2007: Theoretical and Computational Aspects

To read the papers in the IPIA proceedings for free, visit this link:  
<http://herald.iop.org/IPIAVolumeIPNet/m178/cid//link/2194>

6th International Conference on Inverse Problems in Engineering: Theory and Practice (6ICIPE)

To read the papers in the ICIPE proceedings for free, visit this link:  
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Subject: Announcement for New Online Journal: International Journal of Imaging  
From: "Int. J. Tomogr. Stat." <tanujfma@yahoo.com>  
Date: Fri, 20 Jun 2008 00:20:24 -0400

Announcement for New Online Journal from Autumn 2008.

1. International Journal of Imaging (IJI) (ISSN 0974-0627)  
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## Aims and Scope

The main aim of the International Journal of Imaging (ISSN 0974-0627) is to publish refereed, well-written original research articles, and studies that describe the latest research and developments in the area of imaging. This is a broad-based journal covering all branches of imaging and interdisciplinary research e.g. mathematics. International Journal of Imaging (IJI) is a peer-reviewed online journal and is published in Spring and Autumn i.e. two times a year by Indian Society for Development and Environment Research (ISDER).

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-Tanuja Srivastava, Editor-in-Chief  
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International Journal of Imaging  
Department of Mathematics, Indian Institute of Technology,  
Roorkee-247667, INDIA. email: tanujfma@yahoo.com

-----  
Subject:[IJTS] CALL FOR PAPERS: International Journal of Tomography & Statistics  
From: "Int. J. Tomogr. Stat." <tanujfma@yahoo.com>  
Date: Fri, 28 Nov 2008

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Pattern Analysis and Recognition,  
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Subject: CFP: International Journal of Mathematics and Computation  
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Date: Fri, 19 Sep 2008

International Journal of Mathematics and Computation (IJMC).  
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Darboux transformations of lower degree for two-dimensional  $SC^{(1)}$  and  $SDS^{(2)}$  Toda equations Zi-Xiang Zhou

Inverse problems related to a coupled system of microstructure J Janno and J Engelbrecht

A statistical minimax approach to the Hausdorff moment problem Thanh Mai Pham Ngoc

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\*\*\*\*\*

Inverse Problems October 2008 Volume 24, Issue 5  
Table of Contents

Coherent interferometric imaging for synthetic aperture radar in the presence of noise Josselin Garnier and Knut S{\o}lna

Quadratic optimization in ill-posed problems F Ben Belgacem and S-M Kaber

Error estimates for the Lavrentiev regularization of elliptic optimal control problems S Cherednichenko, K Krumbiegel and A R\osch

An inverse solution for torque-free axisymmetric rigid body dynamics, with a test for non-precessional motion M B Lohr

The convergence of a new heuristic parameter selection criterion for general regularization methods Andreas Neubauer

Reconstruction and time reversal in thermoacoustic tomography in acoustically homogeneous and inhomogeneous media Yulia Hristova, Peter Kuchment and Linh Nguyen

The nodal sets of the eigenfunctions of a nonhomogeneous square membrane Chao-Liang Shen

An iterative regularization method for the solution of the split feasibility problem in Banach spaces F Sch\opfer, T Schuster and A K Louis

Regularization independent of the noise level: an analysis of  
quasi-optimality Frank Bauer and Markus Rei{\ss}

Optimal convergence rates for Tikhonov regularization in Besov scales  
D A Lorenz and D Trede

Determinant and Pfaffian solutions of the strong coupling limit of  
integrable discrete NLS systems Ken-ichi Maruno and Barbara Prinari

Numerical methods for experimental design of large-scale linear  
ill-posed inverse problems E Haber, L Horesh and L Tenorio

Time evolution of the scattering data for a fourth-order linear  
differential operator Tuncay Aktosun and Vassilis G Papanicolaou

Construction of potentials using mixed scattering data  
M Lassaut, S Y Larsen, S A Sofianos and J C Wallet

Recovering an obstacle and a nonlinear conductivity from Cauchy data  
William Rundell}

Calder\on's problem for Lipschitz piecewise smooth conductivities  
Sung Eun Kim

Regularized deconvolution on the 2D-Euclidean motion group  
Maia Lesosky, Peter T Kim and David W Kribs

Two noniterative algorithms for locating inclusions using one  
electrode measurement of electric impedance tomography  
Harri Hakula and Nuutti Hyv\onen

An inverse field of values problem Frank Uhlig

Sparse regularization with  $l^q$  penalty term  
Markus Grasmair, Markus Haltmeier and Otmar Scherzer

Thermoacoustic tomography with detectors on an open curve: an  
efficient reconstruction algorithm Leonid A Kunyansky

CORRIGENDA

The expectation-maximization algorithm for ill-posed integral  
equations: a convergence analysis  
Elena Resmerita, Heinz W Engl and Alfredo N Iusem

On the detection of a moving obstacle in an ideal fluid by a boundary  
measurement  
Carlos Conca, Patricio Cumsille, Jaime Ortega and Lionel Rosier

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Inverse Problems December 2008 Volume 24, Issue 6  
Table of Contents

Solving the interior problem of computed tomography using a priori  
knowledge M Courdurier, F Noo, M Defrise and H Kudo

Inverse fixed angle scattering and backscattering problems in two dimensions Valeriy Serov

A simple regularization method for stable analytic continuation  
Chu-Li Fu, Fang-Fang Dou, Xiao-Li Feng and Zhi Qian

A finite-difference contrast source inversion method  
A Abubakar, W Hu, P M van den Berg and T M Habashy

Convergence and stability of the inverse scattering series for diffuse waves Shari Moskow and John C Schotland

A robust identification strategy for rate-dependent models in dynamics  
Hong-Minh Nguyen, Olivier Allix and Pierre Feissel

Fast collocation methods for solving ill-posed integral equations of the first kind Zhongying Chen, Yuesheng Xu and Hongqi Yang

Dehomogenization: reconstruction of moments of the spectral measure of the composite Elena Cherkaev and Miao-Jung Yvonne Ou

Newton regularizations for impedance tomography: convergence by local injectivity Armin Lechleiter and Andreas Rieder

Computed myography: three-dimensional reconstruction of motor functions from surface EMG data  
Kees van den Doel, Uri M Ascher and Dinesh K Pai

Initial-boundary-value problems for discrete evolution equations: discrete linear Schrödinger and integrable discrete nonlinear Schrödinger equations Gino Biondini and Guenbo Hwang

A quasi Tikhonov regularization for a two-dimensional backward heat problem by a fundamental solution J Cheng and J J Liu

A compressive Landweber iteration for solving ill-posed inverse problems R Ramlau, G Teschke and M Zhariy

A proximal decomposition method for solving convex variational inverse problems Patrick L Combettes and Jean-Christophe Pesquet

An inverse problem for the beam equation with memory with nonhomogeneous boundary conditions  
Fabrizio Colombo and Davide Guidetti

Transmission eigenvalues and the nondestructive testing of dielectrics  
Fioralba Cakoni, Mehmet Ceylan and David Colton

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\*\*\*\*\*

Inverse Problems

January 2009  
Table of Contents

Volume 25, Issue 1

Inverse Problems' 25th year of publication  
William W Symes (Editor-in-Chief)

Reflectance optical tomography in epithelial tissues  
Pedro Gonzalez-Rodríguez and Arnold D Kim

A scaled gradient projection method for constrained image deblurring  
S Bonettini, R Zanella and L Zanni

State estimation in quantum homodyne tomography with noisy data  
Jean-Marie Aubry, Cristina Butucea and Katia Meziani

Uniqueness for the determination of unknown boundary and impedance  
with the homogeneous Robin condition Valeria Bacchelli

A forward--backward splitting algorithm for the minimization of  
non-smooth convex functionals in Banach space Kristian Bredies

Dual filtered backprojection for micro-rotation confocal microscopy  
Danai Laksameethanasan, Sami S Brandt, Olivier Renaud and  
Spencer L Shorte

The discrete hungry Lotka--Volterra system and a new algorithm for  
computing matrix eigenvalues  
Akiko Fukuda, Emiko Ishiwata, Masashi Iwasaki and Yoshimasa Nakamura

MUSIC electromagnetic imaging with enhanced resolution for small  
inclusions  
Xudong Chen and Yu Zhong

A multi-resolution technique based on shape optimization for the  
reconstruction of homogeneous dielectric objects  
M Benedetti, D Lesselier, M Lambert and A Massa

A PDE-constrained SQP algorithm for optical tomography based on the  
frequency-domain equation of radiative transfer  
Hyun Keol Kim and Andreas H Hielscher

The stability of inverse scattering with fixed energy  
Miklós Horváth and Márton Kiss

Detecting tangential dislocations on planar faults from traction free  
surface observations Ioan R Ionescu and Darko Volkov

Fast regularizing sequential subspace optimization in Banach spaces  
F Schöpper and T Schuster

A fully no-sampling formulation of the linear sampling method for  
three-dimensional inverse electromagnetic scattering problems  
M Brignone, G Bozza, R Aramini, M Pastorino and M Piana

Morozov's discrepancy principle and Tikhonov-type functionals  
Thomas Bonesky

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Submitted by: Laura A Smith, Production Editor, Inverse Problems  
E-mail: [laura.smith@iop.org](mailto:laura.smith@iop.org)

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Subject: Journal of Inverse and Ill-posed Problems, issue 4-6 (2008)  
From: "Albroscheit, Simon" <Simon.Albroscheit@degruyter.com>  
Date: Fri, 12 Sep 2008

Journal of Inverse and Ill-posed Problems 2008 Vol. 16, Issues 4  
Table of Contents

Definitions and examples of inverse and ill-posed problems  
S. I. Kabanikhin

Recovering a scalar time dependent function in a multidimensional  
parabolic equation by a nonlocal boundary additional information  
U. Fedus A. Lorenzi

A uniqueness result and image reconstruction of the orthotropic  
conductivity in magnetic resonance electrical impedance tomography  
J. Lin

Solving a scalar degenerate multidimensional identification problem in  
a Banach space M. Ivanchov, A. Lorenzi, N. Saldina

\*\*\*\*\*

Journal of Inverse and Ill-posed Problems 2008 Vol. 16, Issues 5  
Table of Contents

Simultaneous identification of independent parameters in elliptic  
equations -- numerical studies T. Hein, M. Meyer

Modulus of continuity of Nemytskii operators with application to the  
problem of option pricing R. Kramer, P. Math\ 'e

Convergence rates and source conditions for Tikhonov regularization  
with sparsity constraints D. A. Lorenz

Metric and Bregman projections onto affine subspaces and their  
computation via sequential subspace optimization methods  
F. Schopfer, T. Schuster, A. K. Louis

Regularization of linear ill-posed problems with noisy right hand side  
and noisy operator U. Tautenhahn

\*\*\*\*\*

Journal of Inverse and Ill-posed Problems 2008 Vol. 16, Issues 6  
Table of Contents

Valentin Konstantinovich Ivanov (1908-1992)

The method of quasi-solutions by Ivanov is the effective method of  
solving ill-posed problems by V. V. Vasin

On error estimates of difference solution methods for ill-posed Cauchy  
problems in a Hilbert space  
A. B. Bakushinsky, M. Yu. Kokurin, S. K. Paymerov

Modulus of continuity for conditionally stable ill-posed problems in  
Hilbert space B. Hofmann, P. Math\ 'e, M. Schieck

On rough inversion of a dynamical system with a disturbance

A. V. Kryazhimskiy, V. I. Maksimov

Convergence results for the Bayesian inversion theory

A. Neubauer, H. K. Pikkarainen

A stability estimate for the solution to the ill-posed Cauchy problem  
for elasticity equations V. G. Romanov

Error estimation for ill-posed problems on piecewise convex functions  
and sourcewise represented sets V. Titarenko, A. Yagola

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Subject: Table of Contents: Inverse Problems in Science and Engineering  
From: "Sternberg, Zoe" <Zoe.Sternberg@tandf.co.uk>  
Date: Thu, 30 Oct 2008 05:03:10 -0400

Inverse Problems in Science and Engineering 2008 Vol. 16, Issue 6  
Table of Contents

Special Issue: Inverse Problems, Design and Optimization Symposium,  
Miami Beach, Florida, USA, April 16-18, 2007 (IPDO2007)

Approximation of the likelihood function in the Bayesian technique for  
the solution of inverse problems  
Helcio R. B. Orlande, Marcelo J. Colaco, and George S. Dulikravich

Inverse determination of kinetic rate constants for  
transesterification of vegetable oils  
Brian H. Dennis, Weiya Jin, Jai Cho, and Richard B. Timmons

Fuzzy ant colony optimization for estimating chlorophyll concentration  
profile in offshore sea water  
A. R. Carvalho, H.F. de Campos Velho, S. Stephany, R. P. Souto,  
J. C. Becceneri, and S. Sandri

A response surface method-based hybrid optimizer  
Marcelo J. Colaco, George S. Dulikravich, and Debasis Sahoo

Dynamic observers based on Green's functions applied to 3D inverse  
thermal models  
Priscila F. B. Sousa, Solid\^onio R. Carvalho, and Gilmar Guimarães

Towards hierarchical design optimization for simultaneous composite  
material characterization and adjustment of the corresponding physical  
experiments J. G. Michopoulos and T. Furukawa

Estimation of the heat transfer coefficient by means of the method of  
fundamental solutions  
Marcus F. Valle, Marcelo J. Colaco, and Francesco S. Neto

Recent advances in inferential solutions to inverse problems

Colin Fox

\*\*\*\*\*

Inverse Problems in Science and Engineering 2009 Vol. 17, Issue 1  
Table of Contents

Special Issue: Inverse Problems, Design and Optimization Symposium,  
Miami Beach, Florida, USA, April 16-18, 2007 (IPDO2007)

Experimental identification of dynamic parameters for steel beams by  
inverse analysis M. N. Abdel-Mooty, H. A. Elshazly, and A. M. Anwar

Aircraft longitudinal stability and control derivatives identification  
by using life cycle and Levenberg-Marquardt optimization algorithms  
Felipe Antonio Chegury Viana, Benedito Carlos de Oliveira Maciel, Nei  
Salis Brasil Neto, Marcelo Fernandes de Oliveira, Valder Steffen Jr,  
and Luiz Carlos Sandoval Goes

Extracting inelastic metal behaviour through inverse analysis: a shift  
in focus from material models to material behaviour  
Y. M. A. Hashash, H. Song, S. Jung, and J. Ghaboussi

A new inverse processing approach to the modelling of head-related  
transfer functions for audio spatialization  
K.J. Faller II, A. Barreto, and N. Rishé

An inverse coefficient identification problem for the bio-heat  
equation Dumitru Trucu, Derek B. Ingham, and Daniel Lesnic

A hybrid approach with artificial neural networks, Levenberg-Marquardt  
and simulated annealing methods for the solution of gas-liquid  
adsorption inverse problems  
Jader Lugon Jr, Antônio J. Silva Neto, and César Costapinto Santana

Noise filtration in fluorescence-enhanced optical tomography: breast  
phantom studies  
Banghe Zhu, Eva M. Sevick-Muraca, Margaret J. Eppstein, and  
Anuradha Godavarty

Shape optimization of 3D viscous flow fields  
Eiji Katamine, Yuya Nagatomo, and Hideyuki Azegami

A physically-based radar calibration method for improved rainfall  
estimation: application to the Fort-Collins flash flood of 1997  
Amvrossios C. Bagtzoglou, Justin M. Niedzialek, Sandrine A. Baun,  
Emmanouil N. Anagnostou, and Fred L. Ogden

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Gerhard Zangerl, Otmar Scherzer, and Markus Haltmeier

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transverse functions            D.A. Lizarraga and J.M. Sosa

Uniform stabilization for linear systems with persistency of  
excitation: the neutrally stable and the double integrator cases.  
A. Chaillet, Y. Chitour, A. Loria, and M. Sigalotti

Maximal solution to algebraic Riccati equations linked to infinite  
Markov jump linear systems        J. Baczynski and M.D. Fragoso

Robust boundary control of systems of conservation laws  
C. Prieur, J. Winkin, and G. Bastin

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Submitted by: Corry Magriijn (Secretary) for  
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Subject: Contents, Nonlinear Analysis: Modelling and Control 13:2-4  
From: Romas Baronas <[romas.baronas@mif.vu.lt](mailto:romas.baronas@mif.vu.lt)>  
Wed, 10 Dec 2008

Nonlinear Analysis: Modelling and Control    2008    Vol. 13, No. 2  
Table of Contents

Vector Additive Decomposition for 2D Fractional Diffusion Equation  
N. Abrashina-Zhadaeva, N. Romanova

Existence Theorems for Some Classes of Boundary Value Problems  
Involving the  $P(X)$ -Laplacian        Ionica Andrei

A Two-Dimensional Discrete Limit Theorem in the Space of Analytic  
Functions for Mellin Transforms of the Riemann Zeta-Function  
V. Balinskaite, A. Laurineikas

Transient Mixed Convection Flow of a Second-Grade Visco-Elastic Fluid  
over a Vertical Surface  
R.A. Damseh, A.S. Shatnawi, A.J. Chamkha, H.M. Duwairi

Stokes' Problems for an Incompressible Couple Stress Fluid  
M. Devakar, T.K.V. Iyengar

Numerical Simulation of Electrochemical Processes at a Tubular  
Electrode. Application to Spectroscopy        O.V. Klymenko, J. Kulys

Fuzzy Hammerstein Model of Nonlinear Plant        R. Liutkevičius

Conjugate Heat Transfer for a Vertical Flat Plate with Heat Generation  
Effect        A.A. Mamun, Z.R. Chowdhury, M.A. Azim, M.A. Maleque

The Dynamics of Food Web Model with Defensive Switching Property  
R.K. Naji, I.H. Kasim

Analogue Electrical Circuit for Simulation of the Duffing-Holmes  
Equation  
Tamaseviciute, A. Tamasevicius, G. Mykolaitis, S. Bumeliene, E. Lindberg

Chaos Synchronization Using Active Control and Backstepping Control:  
A Comparative Analysis U.E. Vincent

\*\*\*\*\*

Nonlinear Analysis: Modelling and Control 2008 Vol. 13, No. 3  
Table of Contents

Improving the Performance of the Continued Fractions Method Using New  
Bounds of Positive Roots A.G. Akritas, A.W. Strzebonski, P.S. Vigklas

Network Numerical Simulation of Impulsively-Started Transient  
Radiation-Convection Heat and Mass Transfer in a Saturated  
Darcy-Forchheimer Porous Medium  
O. Anwar Beg, J. Zueco, H.S. Takhar, T.A. Beg

Density Dependent Predator Death Prevalence Chaos in a Tri-Trophic  
Food Chain Model  
M. Bandyopadhyay, S. Chatterjee, S. Chakraborty, J. Chattopadhyay

The Method of Prime Costs Determination of the Model Row Goods  
A.S. Barashkov, D.S. Petrosian

Analysis of a Vaccination Model for Carrier Dependent Infectious  
Diseases with Environmental Effects  
Ram Naresh, Surabhi Pandey, A.K. Misra

On the Dynamics of Controlled Magnetohydrodynamic Systems  
S.S. Ravindran

Analysis of an Antiplane Contact Problem with Adhesion for  
Electro-Viscoelastic Materials  
M. Sofonea, L. Chouchane, L. Selmani

Numerical Approximation of Some Infinite Gaussian Series and Integrals  
M. Stoncelis, M. Vaiciulis

\*\*\*\*\*

Nonlinear Analysis: Modelling and Control 2008 Vol. 13, No. 4  
Table of Contents

Theoretical Analysis of Radiative Effects on Transient Free Convection  
Heat Transfer past a Hot Vertical Surface in Porous Media  
S.K. Ghosh, O. Anwar Beg

Front Dynamics with Delays in a Spatially Extended Bistable System:  
Computer Simulation V. Jasaitis, F. Ivanauskas, R. Bakanas

Hopf Bifurcation Analysis in a Delayed Kaldor-Kalecki Model of  
Business Cycle  
A. Kaddar, H. Talibi Alaoui

Effects of Suction and Blowing on Flow Separation in a Symmetric Sudden Expanded Channel

G.C. Layek, C. Midya, S. Mukhopadhyay

Investigation of Negative Critical Points of the Characteristic Function for Problems with Nonlocal Boundary Conditions

S. Peciulyte, O. Stikonienė, A. Stikonas

Modeling of Infantry Attacks on Real Terrain

A. Pincevičius, R. Baužys, S. Bekešienė, V. Kleiza

Divisibility Properties of Recurrent Sequences

T. Plankis

Effects of Temperature Dependent Thermal Conductivity on Magnetohydrodynamic (MHD) Free Convection Flow along a Vertical Flat Plate with Heat Conduction

M.M. Rahman, A.A. Mamun, M.A. Azim, M.A. Alim

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V. Skakauskas

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Submitted by: Dr. Romas Baronas, Journal Secretary,

Nonlinear Analysis: Modelling and Control

-----  
Subject: Contents, Electronic Transactions on Numerical Analysis

From: Lothar Reichel <[reichel@math.kent.edu](mailto:reichel@math.kent.edu)>

Date: Thu, 9 Oct 2008 22:58:21 -0400

Electronic Trans. on Numerical Analysis 2007-2008 Volume 28  
Table of Contents

This is a special volume in memory of Gene H. Golub,  
edited by M. Gutknecht, M. Overton, L. Reichel, D. B. Szyld,  
L.N. Trefethen, P. Van Dooren, and A. Wathen.

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M. R. Osborne

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Michele Benzi and Nader Razouk

Convergence theory for inexact inverse iteration applied to the generalised nonsymmetric eigenproblem

Melina A. Freitag and Alastair Spence

The structured distance to normality of an irreducible real tridiagonal matrix

S. Noschese, L. Pasquini, and L. Reichel

Minimization of the spectral norm of the SOR operator in a mixed case  
A. Hadjidimos and P. Stratis

A refined unsymmetric Lanczos eigensolver for computing accurate  
eigen triplets of a real unsymmetric matrix  
Jean Christophe Tremblay and Tucker Carrington Jr.

Derivation of high-order spectral methods for time-dependent PDE using  
modified moments James V. Lambers

An application of the finite volume method to the  
bio-heat-transfer-equation in premature infants  
Martin Ludwig, Jochim Koch, and Bernd Fischer

A weighted-GCV method for Lanczos-hybrid regularization  
Julianne Chung, James G. Nagy, and Dianne P. O'Leary

Variable-precision arithmetic considered perilous - a detective story  
Dirk Laurie

Implementing an interior point method for linear programs on a CPU-GPU  
system Jin Hyuk Jung and Dianne P. O'Leary

Quantum dynamical entropy and an algorithm by Gene Golub  
Giorgio Mantica

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M. Afanasjew, M. Eiermann, O. G. Ernst, and S. Guttel

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ETNA volume 31, a special volume on Computational Methods with  
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