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IPNet Digest   Volume 16, Number 01   February 15, 2009

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

Today's Topics:

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    EIT Conference and Inverse Problems Workshop
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    Summer School on Seismic Imaging
    Thermal Measurements and Inverse Techniques (METTI IV)
    Inverse Problems in Science and Engineering Symposium
    SIAM/ACM Joint Conf. on Geometric, Physical Modeling
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    Table of Contents: Electronic Trans. on Numerical Analysis
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Submissions for IPNet Digest: Mail to ipnet-digest@math.msu.edu

Information about IPNet: http://www.math.msu.edu/ipnet

Subject: Conference on Applied Inverse Problems 2009 - Vienna, Austria
From: Magdalena Fuchs <magdalena.fuchs@oeaw.ac.at>
Date: Fri, 16 Jan 2009

CONFERENCE ON APPLIED INVERSE PROBLEMS 2009
July 20th to 24th in 2009
Vienna - Austria

Now open for registration!
http://www.ricam.oeaw.ac.at/conferences/aip2009/welcome.html

12 Invited Plenary Talks: (in alphabetical order)

- Habib Ammari - CNRS
- Sylvain Baillet - Medical College of Wisconsin
- Jeffrey Bamber - The Institute of Cancer Research
- George Biros - University of Pennsylvania
- Jin Cheng - Fudan University
- David Colton - University of Delaware
- Thorsten Hohage - University of Göttingen
- Mohamed Jaoua - Polytech'Nice-Sophia
- Barbara Kaltenbacher - University of Stuttgart
- Patricia Lamm - Michigan State University
- Alfred Louis - Saarland University
- Gen Nakamura - Hokkaido University

about 45 Minisymposia!

Please, register early - accommodation is very sought after during July in Vienna:

http://www.ricam.oeaw.ac.at/conferences/aip2009/registration/

Subject: EIT Conference and Inverse Problems Workshop Call for Papers
From: Bill Lionheart <bill.lionheart@manchester.ac.uk>
Date: Mon, 2 Feb 2009

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

Manchester 2009

Second announcement and call for papers
http://www.maths.manchester.ac.uk/eit2009/

The International Steering Committee on Electrical Impedance Tomography, the Impedance Imaging Research Centre, Korea and the Manchester Institute of Mathematical Sciences (MIMS) 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

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 detectiona and non-destructive testing. We will also aim to promote collaboration with those working in electosensing in the animal kingdom (notably weakly electric fish).

Confirmed speakers include Gunther Uhlmann, Victor Isakov, Habib Ammari and Mike Nelson (an expert on weakly electric fish).

A registration form with details of accommodation and costs will appear on the above website later today, or can be obtained from the conference organiser, the MIMS Secretary Lucy van Russelt lucy.vanrusselt@manchester.ac.uk . Short abstracts (500 words max)

please by March 15th. We will need extended abstracts by May 15th.

As usual we are planning a special issue of Physiological Measurement for EIT papers.

Bill Lionheart (conference chair, workshop co-chair)
Eung-je Woo (conference co-chair)
Richard Bayford (conference co-chair),
Oliver Dorn (workshop chair)

Subject: Industrial Inverse Problems Workshop/Sandpit
From: Daniel Lesnic <amt5ld@maths.leeds.ac.uk>
Date: Wed, 4 Feb 2009

Announcement of the Industrial Inverse Problems Workshop/Sandpit, University of Leeds, 23-24 March 2009

The purpose of the meeting is for industrialists and academics to identify inverse problems of common interest.

The Workshop/Sandpit will follow the format of presentations from industry by way of introducing the problems on the first day, followed by intensive work on the problems by groups (academic and industrial) during the next day.

The provisional programme of talks from industry is as follows:

- Malcom Byars (Process Tomography Ltd.) and Andrew Hunt (Tomoflow Ltd.) - How to calculate accurate concentration profiles in two-phase flows using electrical capacitance tomography (ECT)

- David Daniels (ERA Technology UK) - Landmine detection using ultra wideband (UWB) radar - signal recovery in a lossy, inhomogeneous and high clutter environment

- Kees- Van Malssen (Unilever, The Netherlands) - Inverse problems in industry: Stochastical and analytical correlation between consumer and production

- Sanjiv Sharma (Airbus UK) - To be announced.

As an outcome of this activity it is hoped that a rapport between academics and industrialists will be established and cemented through possible grant proposals for PhD Studentships / CASE Awards and Post-docs to be submitted to the EPSRC or to other foundations.

Academic participation is open to all members of the inverse problems community or related subjects, including postgraduate students, for whom the proposed activity provides an excellent training in oriented research. Please note that there are no fees to be charged for participating at the workshop.

To register for the workshop, academics and industrialists are invited to send their contact details (before 1st March 2009) to:

D. Lesnic
Department of Applied Mathematics, University of Leeds,
Leeds LS2 9JT, UK. e-mail: amt5ld@maths.leeds.ac.uk.

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Subject: Summer School on Seismic Imaging
From: Gunther Uhlmann <gunther@math.washington.edu>
Date: Fri, 13 Feb 2009

Summer School on Seismic Imaging
August 10-14, 2009
University of Washington, Seattle

The workshop will consist of several minicourses addressing a broad range
of theoretical and practical issues arising in seismic imaging including
the use of curvelets and other frames in seismic imaging, compressed
sensing applied to seismic imaging, velocity estimation and inverse wave
imaging. Each minicourse will consist of 3 one hour lectures. There will
be computer labs associated with the lectures. The lecturers are Maarten
de Hoop, Felix Herrmann, Gary Margrave, Hart Smith and William Symes.

There is financial support for graduate students, postdocs and
scientists without travel support. Women and minorities are specially
encouraged to apply. For details on how to apply, and more information
about the workshop see the webpage:

http://www.math.washington.edu/~hyliu/SummerSchool.htm

Gunther Uhlmann

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Subject: METTI 2009 - First Announcement
From: Helcio Rangel Barreto Orlande <helcio@mecanica.coppe.ufrj.br>
Date: Wed, 7 Jan 2009

FIRST ANNOUNCEMENT

FRANCO-BRAZILIAN ADVANCED SCHOOL

METTI IV - THERMAL MEASUREMENTS AND INVERSE TECHNIQUES
Pertinent use of experiments and models

Rio de Janeiro, November 8-13, 2009

Recent advances in both thermal instrumentation and modeling permits
the combination of efficient experimental procedures and of indirect
measurements, within the research paradigm of inverse
problems. Inverse Heat Transfer Techniques rely on temperature
measurements for the estimation of unknown quantities appearing in the
analysis of physical problems in thermal engineering.

Although initially associated with the estimation of boundary heat
fluxes by using temperature measurements taken inside a heated body,
inverse analyses are nowadays encountered in single and multi-mode
heat transfer problems, dealing with multi-scale
phenomena. Applications range from the estimation of constant heat
transfer parameters to the mapping of spatially and timely varying
functions, such as heat sources, fluxes and thermophysical properties.

The objective of the Franco-Brazilian Advanced School METTI IV is to
promote the theory and application of inverse methods in thermal
engineering. The METTI School is organized in theoretical courses and
practical hands-on workshops, covering fundamental and advanced
material in inverse problems and measurement techniques. This Advanced

School is aimed at engineers, graduate students and researchers, working both in the academia and industry. Expected attendance is of one hundred participants. The official language is English.

The METTI (Thermal Measurements and Inverse Techniques) Group, a division of the Société Française de Thermique (French Heat Transfer Society), periodically organizes such schools. Previous versions took place in France in 1995, 1999 and 2005. For the first time this school is organized outside France, as an activity of the Year of France in Brazil. The School METTI IV is promoted by Société Française de Thermique – SFT and Associação Brasileira de Engenharia e Ciências Mecânicas – ABCM.

For more information, please contact:

Olivier Fudym
RAPSODEEE UMR CNRS 2392
Ecole des Mines d'Albi
81013 Albi
Tel.: 33 (0) 5 63 49 30 24
fuym@enstimac.fr

or

Helcio R. B. Orlande
DEM/PEM - POLITÉCNICA/COPPE
Universidade Federal do Rio de Janeiro, UFRJ
Cx. Postal 68503 – Cidade Universitária
Rio de Janeiro, RJ, Brasil – 21945-970
Tel : 55-21-2562-8405
helcio@mecanica.ufrj.br

Subject: Inverse Problems in Science and Engineering Symposium
From: George Dulikravich <dulikrav@fiu.edu>
Date: Sat, 7 Feb 2009

Dear Colleague,

This is to inform you of the upcoming ASME International Design Engineering Conference & Computers and Information in Engineering Conference (IDETC/CIE 2009) which will take place August 30 - September 2, 2009 in San Diego, California.

You are invited to present your technical papers(s) for presentation at the

Inverse Problems in Science and Engineering Symposium

which is a part of this conference by visiting the website http://www.asmeconferences.org/idetc09/.

Paper submissions deadline has been extended to February 27, 2009.

For details please visit the conference website at http://www.asmeconferences.org/idetc09/. This web page will provide you with the latest conference information as it becomes available.

The IDETC/CIE 2009 is comprised of 13 sub-conferences, and has the

overarching theme "Design for a Changing World". Contact information
for each sub-conference is listed below:

We hope that you will consider participating in this conference.
Best wishes and we all look forward to seeing you in San Diego.
On behalf of the Symposium organizers (Dulikravich, Dennis,
Micholoulos),

Sincerely,

George S. Dulikravich, Ph.D., FASME, FAAM
Professor and Chairman, Department of Mechanical and Materials Eng.,
Florida International University, 10555 West Flagler St., EC 3474
Miami, Florida 33174

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/

*** SUBMISSIONS ARE NOW BEING ACCEPTED - SEE BELOW ***

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.

Topics include, but are not limited to:

* 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

HOW TO PARTICIPATE

In ACM SPM tradition, the conference will include a track for
submission of technical papers for those wishing rigorous peer review
and published proceedings. In addition, in the tradition of previous
SIAM GD events, abstracts for minisymposia and contributed
talks/posters are solicited.

SUBMISSIONS

The submission system for technical papers is now open. Papers will be
thoroughly peer reviewed, and selected papers will be published by ACM
in the conference proceedings. The three best papers will be awarded a
prize at the conference by the Solid Modeling Association.

Following the conference, selected papers of outstanding quality will
be referred to the journals Computer-Aided Design or IEEE Transactions
on Visualization and Computer Graphics for extended publication

The submission system for abstracts for minisymposia and contributed
talks/posters is also open.

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

http://www.siam.org/meetings/gdspm09/participation.php

Please keep in mind the following important dates:

- 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

INVITED SPEAKERS
We are pleased to announce the following invited speakers:

David Baraff, Pixar Animation Studios
Ted D. Blacker, Sandia National Laboratories
Leonidas Guibas, Stanford University
Baining Guo, Microsoft Research Asia
Stefanie Hahmann, Grenoble Institute of Technology, France
Bert Jüttler, Johannes Kepler University, Austria

NOTE ON PACIFIC GRAPHICS 2009
There is a partial overlap of dates between this conference and

Pacific Graphics 2009. Realizing that there are shared members of our communities, and that some of them may be interested in submitting different contributions to the two conferences, the organizing committees have agreed to schedule such accepted contributions at the two events so that they can all be presented.

Organizing Committee and Program Committee
See conference website: http://www.siam.org/meetings/gdspm09/

Subject: SIAM Conf. on Control & Its Applications: Deadlines extended
From: Kirsten Wilden <Wilden@siam.org>
Date: Tue, 27 Jan 2009

DEADLINES EXTENDED!

Subject: SIAM Conference on Control and Its Applications - CFP Deadlines

Conference Name: SIAM Conference on Control and Its Applications (CT09), being held jointly with the 2009 SIAM Annual Meeting

Location: Sheraton Denver Downtown Hotel, Denver, Colorado

Dates: July 6-8, 2009

Topical Speakers (partial list):
Stephane Gaubert, INRIA and CMAP, Ecole Polytechnique, France
Hidenori Kimura, The Institute of Physical and Chemical Research (RIKEN), Japan
Kirsten Morris, University of Waterloo, Canada
Hector Sussmann, Rutgers - State University of New Jersey

Joint Speaker:
Karl Kunisch, University of Graz, Austria

The Call for Presentations for this conference is available at:
http://www.siam.org/meetings/ct09/

Deadlines

Deadlines are midnight Eastern Standard Time
February 16, 2009: Minisymposium proposals
February 16, 2009: Abstracts for contributed and minisymposium speakers

For additional information, contact the SIAM Conference Department (meetings@siam.org).

Subject: 2009 SIAM Annual Meeting - Submission deadline extended.
From: Connie Young <Young@siam.org>
Date: Mon, 12 Jan 2009 08:45:04 -0500

MINISYMPOSIUM PROPOSAL DEADLINE EXTENDED!

Subject: 2009 SIAM Annual Meeting

Conference Name: SIAM Annual Meeting (AN09) (being held jointly with the 2009 SIAM Conference on Control and Its Applications)

Location: Sheraton Denver Downtown Hotel, Denver, Colorado

Dates: July 6-10, 2009

General 2009 SIAM Annual Meeting Website:
http://www.siam.org/meetings/an09/

Submission site: http://meetings.siam.org/start.cfm?CONFCODE=an09

Deadlines
Deadlines are midnight Eastern Standard Time

January 26, 2009: Minisymposium proposals
January 26, 2009: Abstracts for contributed and minisymposium
speakers

Plenary Speakers

Heinz-Otto Kreiss, KTH Stockholm, Sweden
Karl Kunisch*, University of Graz, Austria
Ulisses Mello, IBM Research

*Joint speaker with the 2009 SIAM Conference on Control and Its
Applications

Topical Speakers

Alberto Bressan, Pennsylvania State University
Russel E. Caflisch, University of California, Los Angeles
Stephen Coombes, University of Nottingham, United Kingdom
Michael C. Ferris, University of Wisconsin
Wen-mei Hwu, University of Illinois at Urbana-Champaign
Ioannis Karatzas, Columbia University
Charles E. Leiserson, Cilk Arts and Mass. Institute of Technology
Lois Curfman McInnes, Argonne National Laboratory
Juan C. Meza, Lawrence Berkeley National Laboratory
Lior Pachter, University of California at Berkeley
Robert L. Pego, Carnegie Mellon University
Cynthia A. Phillips, Sandia National Laboratories
Shang-Hua Teng, Boston University
Xuan Zeng, Fudan University, Shanghai, China

For additional information, contact the SIAM Conference Department
(meetings@siam.org).

Subject: 3 Postdoctoral Positions at Warwick University
From: Andrew Stuart <A.M.Stuart@warwick.ac.uk>
Date: Thu, 8 Jan 2009

Three postdoctoral positions are currently open,
two in the broad area of Bayesian Inverse Problems
in Differential Equations (with Andrew Stuart, Warwick),
and one in Nonlinear Filtering in High Dimensions (with
CKRT Jones, AM Stuart, Warwick and TJ Lyons, J Norbury,
Oxford). Details may be found at:

http://www.warwick.ac.uk/~masdr/postdoc.html

Submitted by: Andrew Stuart, Mathematics Institute, University of
Warwick, Coventry CV4 7AL England

Inverse Problems is pleased to announce that its latest special
section, on testing inversion algorithms against experimental data: 3D
targets, is now freely available online until 12 March 2009 at

http://herald.iop.org/SPECD1/m29/avh//link/2338

This special section was Guest Edited by Amelie Litman and Lorenzo
Crocco and contains the results of the application of several
electromagnetic inverse scattering methods to the experimental
database provided by the Institut Fresnel, Marseille, France and
constituted by three-dimensional dielectric targets.

We are pleased to make the Guest Editors' introduction and the two
articles 'Continuing with the Fresnel database: experimental setup and
improvements in 3D scattering measurements' by J M Geffrin and P
Sabouroux and 'Three-dimensional quantitative microwave imaging from
measured data with multiplicative smoothing and value picking
regularization' by Juergen De Zaeytijd and Ann Franchois featured
articles on the journal homepage; to read them for free visit

http://herald.iop.org/SPECD2/m29/avh/link/2339

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

Kate Watt
Publisher, Inverse Problems
ip@iop.org

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Three-dimensional reconstruction from real data using a conjugate gradient-coupled dipole method
Patrick C Chaumet and Kamal Belkebir

Three-dimensional quantitative microwave imaging from measured data with multiplicative smoothing and value picking regularization
J\"urgen De Zaeytijd and Ann Franchois

Microwave imaging from experimental data within a Bayesian framework with realistic random noise
C Eyraud, A Litman, A H\'erique and W Kofman

Application of the multiplicative regularized contrast source inversion method on 3D experimental Fresnel data
Maokun Li, Aria Abubakar and Peter M van den Berg

Reconstruction of 3D objects from multi-frequency experimental data with a fast DBIM-BCGS method
Chun Yu, Mengqing Yuan and Qing Huo Liu

PAPERS

Augmented Tikhonov regularization
Bangti Jin and Jun Zou

A Newton root-finding algorithm for estimating the regularization parameter for solving ill-conditioned least squares problems
Jodi L Mead and Rosemary A Renaut

The relationship between the hyperbolic Nizhnik--Novikov--Veselov equation and the stationary Davey--Stewartson II equation
Zi-Xiang Zhou

An implicit radial basis function based reconstruction approach to electromagnetic shape tomography
Naren Naik, Rick Beatson, Jerry Eriksson and Elijah van Houten

Seismic imaging with the generalized Radon transform: a curvelet transform perspective
M V de Hoop, H Smith, G Uhlmann and R D van der Hilst

On Tikhonov regularization with non-convex sparsity constraints
Clemens A Zarzer

Individual articles are free for 30 days following their publication on the web. This issue is available at:
http://www.iop.org/EJ/toc/0266-5611/25/2

Submitted by: Laura A Smith, Production Editor, laura.smith@iop.org

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Subject: TOC, J. Inverse and Ill-posed Problems 2008, issues 7, 8 and 9
From: Albroscheit, Simon <Simon.Albroscheit@degruyter.com>
Date: Fri, 2 Jan 2009 05:08:53 -0500

Journal of Inverse and Ill-posed Problems   2008   Vol. 16 No. 7
                        Table of Contents

Localization algorithms for singularities of solutions to convolution equations of the first kind   A. L. Ageev, T. V. Antonova

Unimprovable estimates of solutions for some classes of integral
inequalities   A. S. Apartsyn

Relative computational efficiency of iteratively regularized methods
A. B. Bakushinsky, A. Smirnova, N. Tuncer

Uniqueness of solution to an inverse problem for a semilinear system of
partial differential equations   A. M. Denisov

Quasi-solution in inverse coefficient problems
S. Kabanikhin, M. Shishlenin

Inverse nodal problems for Sturm–Liouville operators on star-type graphs
V. Yurko

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Journal of Inverse and Ill-posed Problems   2008   Vol. 16 No. 8
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Journal of Inverse and Ill-posed Problems   2008   Vol. 16 No. 9
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All issues are hosted on de Gruyter's new and integrated platform
www.reference-global.com

Subject: TOC, Electronic Transactions on Numerical Analysis 2008, Vol.30
From: Lothar Reichel <reichel@math.kent.edu>
Date: Wed, 21 Jan 2009 17:51:31 -0500

Electronic Transactions on Numerical Analysis   2008   Vol. 30
                           Table of Contents

Numerical blow-up solutions for some semilinear heat equations
Firmin K. N'Gohisse, Theodore K. Boni

Optimal discretization of PML for elasticity problems   Vadim Lisitsa

New quadrature rules for Bernstein measures on the interval [-1,1]
E. Berriochoa, A. Cachafeiro, J. M. Garcia-Amor, F. Marcellan

A convergent adaptive finite element method with optimal complexity
Roland Becker, Shipeng Mao, Zhong-Ci Shi

Stability analysis of fast numerical methods for Volterra integral
equations   G. Capobianco, D. Conte, I. Del Prete, E. Russo

On algebraic multilevel methods for non-symmetric systems - convergence
results   Christian Mense, Reinhard Nabben

Parameter-uniform fitted operator B-spline collocation method for
self-adjoint singularly perturbed two-point boundary value problems
Mohan K. Kadalbajoo, Devendra Kumar

An overlapping additive Schwarz-Richardson method for monotone nonlinear
parabolic problems   M. Munteanu, L. F. Pavarino

On the calculation of approximate Fekete points: the univariate case
L. P. Bos, N. Levenberg

Approximation of the minimal Geršgorin set of a square complex matrix
Richard S. Varga, Ljiljana Cvetkovic, Vladimir Kostic

Fast wave propagation by model order reduction
V. Pereyra, B. Kaelin

ETNA is available at http://etna.math.kent.edu and at several mirror
sites. ETNA is in the extended Science Citation Index and the CompuMath
Citation Index.

Submitted by: Lothar Reichel

Subject: Online Table of Contents JAFA 2009, VOL 4.
From: "George A Anastassiou (ganastss)" <ganastss@gmail.com>
Date: Tue, 9 Feb 2009

Online contents for Journal of Applied Functional Analysis
Vol. 4, No. 1, 2009:

http://www.eudoxuspress.com/images/TOC-JAFA-2009-VOL-4.pdf

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

Subject: Online Table of Contents JCAAM 2009, VOL 7.
From: "George A Anastassiou (ganastss)" <ganastss@gmail.com>
Date: Fri, 13 Feb 2009

Online contents for Journal of Concrete and Applicable Mathematics,
Vol. 7, No. 1, 2009:

http://www.eudoxuspress.com/images/TOC-JCAAM---2009-VOLUME-7.pdf

Submitted by: George A. Anastassiou,Ph.D, Department of Mathematical
Sciences, The University of Memphis, Memphis,TN 38152,USA
------- end -------

IPNet Digest   Volume 16, Number 02   May 20, 2009

Today's Editors:

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

Today's Topics:

    Conf/School on Inverse and Ill-posed Problems
    2nd Int'l Congress on Image and Signal Processing
    6th Int'l Conf on Remote Engineering, Virtual Instrumentation
    SIAM Conf on Mathematical/Computational Issues in Geosciences
    Int'l J. Tomography & Statistics now covered by SCOPUS
    Table of Contents: Inverse Problems
    Table of Contents: Inverse and Ill-posed Problems
    Table of Contents: Nonlinear Analysis: Modelling and Control
    Table of Contents: J. Computational Analysis and Applications

Submissions for IPNet Digest: Mail to ipnet-digest@math.msu.edu

Information about IPNet: http://www.math.msu.edu/ipnet

Subject: Conf. and Young Scientists School on Theory and
   Computational Methods for Inverse and Ill-posed Problems
From: "Irina A. Gainova" <gajnova@math.nsc.ru>
Date: Wed, 6 May 2009

International Conference and Young Scientists School
"Theory and Computational Methods for Inverse and Ill-posed Problems"

Novosibirsk, Russia
10 - 20 August 2009

http://math.nsc.ru/conference/onz09/engl.html

Scientific program will consist of lectures by members of the
International Program Committee, talks by invited speakers and young
scientists' presentations on:

 - Theory of inverse and ill-posed problems and regularization methods.
 - Computational methods for solution of inverse problems in acoustics,
  electrodynamics, tomography, electrical survey, seismology,
  gravimetry, transport theory and other fields of science.
 - Non-distructive testing.
 - Parallel computations.
 - New information technologies.
 - Visualization.

Honorary chairman of International Program Committee:
  academician M.M. Lavrentiev (Novosibirsk, Russia)

Chair: Prof. Sergei Kabanikhin (Novosibirsk, Russia)

Hosted by: Sobolev Institute of Mathematics SB RAS and International
Foundation for Inverse Problems

Deadline
MAY 20, 2009: Registration and abstract submission

For details please refer to the conference website
http://math.nsc.ru/conference/onz09/engl.html

Submitted by: Irina Gainova, Ph.D.
Sobolev Institute of Mathematics SB RAS

[This news item has been edited for length. Please see the conference
website for more details. -Ed]

Subject: CISP'09-BMEI'09 Final Call: Extended Deadline
From: CISP'09-BMEI'09 <cisp_bmei_cfp@tjut.edu.cn>
Date: Sat, 25 Apr 2009

Dear Colleague,

The 2nd International Congress on Image and Signal Processing (CISP
2009) and the 2nd International Conference on BioMedical Engineering
and Informatics (BMEI 2009) will be jointly held in Tianjin, China,
from 17 to 19 October 2009. We cordially invite you to submit a paper
and/or an exhibition. Due to numerous requests, the submission
deadline is extended to 20 May 2009.

Selected best papers will appear in SCI-indexed journals, such as
"Multimedia Tools and Applications" and "Journal of Medical Systems".
The papers published in the proceedings will be included in the IEEE
Xplore and indexed in Ei Compendex (CISP 2009 IEEE Catalog Number:
CFP0994D; BMEI 2009 IEEE Catalog Number: CFP0993D).
CISP'09-BMEI'09 is technically co-sponsored by the IEEE Engineering
in Medicine and Biology Society.

Tianjin is one of the four municipalities in China. It is a financial
and commercial center in North China and is known for its numerous
travel resources and rich history, such as the Huangyaguan Great Wall,
Dule Temple, Panshan Mountain and Food Street. It takes only 30
minutes to travel between Tianjin and Beijing by high-speed train.

The registration fee of US$420 includes lunches, dinners, and banquet.
The previous CISP'09-BMEI'09 attracted over 2600 submissions from more
than 30 countries.

CISP'09-BMEI'09 aims to provide a high-level international forum for
scientists and researchers to present the state of the art of
multimedia, signal processing, biomedical engineering, and biomedical
informatics.

For more information, visit the conference web page:

   http://www.tjut.edu.cn/cisp-bmei2009

If you have any questions after visiting the conference web page,
please email the secretariat at cisp2009@tjut.edu.cn

With best regards,

CISP'09-BMEI'09 Organizing Committee

International Association of Online Engineering

Sixth International Conference on Remote Engineering
and Virtual Instrumentation (REV 2009)

University of Bridgeport

http://www.rev2009bridgeport.org

June 22-25, 2009

CONFERENCE OVERVIEW
The Sixth International Conference on Remote Engineering and Virtual
Instrumentation (REV 2009) will be held on June 22-25, 2009 at the
University of Bridgeport, Bridgeport, Connecticut, U.S.A.

REV 2009 is the sixth in a series of annual events addressing the area
of remote engineering and virtual instrumentation. Previous editions
of REV were organized in the form of an international symposium, and
evolved in 2007 to be the annual conference of the International
Association of Online Engineering. The general objective of this
conference is to discuss fundamentals, applications and experiences
within the field of online engineering, both in industry and
academia. REV 2009 offers an exciting technical program as well as
academic networking opportunities during the social events.

Scope of the conference:

Remote Engineering and Virtual Instrumentation are emerging trends in
engineering and science. Due to:

 The increasing complexity of engineering tasks
 The availability of specialized and expensive equipment as well as
   software tools and simulators
 The need for highly qualified staff to control equipment
 The demands of globalization

The general objective of this conference is to discuss fundamentals,
applications and experiences in the field of remote engineering and
virtual instrumentation. It is becoming increasingly necessary to
allow the shared use of equipment and specialized software. The use of
virtual and remote laboratories is one of the future directions for
advanced teleworking, remote services, collaborative research and
e-working environments.

N. Gupta
REV 2009 Program Chair
University of Bridgeport
221 University Avenue   e-mail:info@rev2009bridgeport.org
Bridgeport, CT 06604, U.S.A.   http://www.rev2009bridgeport.org

[This news item has been edited for length. Please see the conference
website for more details. -Ed]

Subject: SIAM Conference on Mathematical & Computational Issues in the
Geosciences - Program and Registration
From: "Nicole C. Jorlett" <Jorlett@siam.org>
Date: Mon, 23 Mar 2009

SIAM Conf. on Mathematical & Computational Issues in the Geosciences

Leipziger Kubus Conference Center, Helmholtz
Centre for Environmental Research - UFZ, Leipzig, Germany

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, Alfred Wegener Institute, Germany
Joannes J. Westerink, University of Notre Dame, USA

Registration, hotel informaton and the preliminary program for this
conference are available at: http://www.siam.org/meetings/gs09/

For additional information, contact the SIAM Conference Department at
meetings@siam.org.

Subject: IJTS will be covered by SCOPUS
From: tanujfma <tanujfma@yahoo.com>
Date: Mon, 16 Feb 2009

Dear Colleague,

Greeting from "International Journal of Tomography & Statistics (IJTS)".

In recognition of the high quality and relevance to the scientific
community of the journal listed, we are pleased to inform you that
"International Journal of Tomography & Statistics" has been selected
for coverage in the Elsevier Bibliographic Databases i.e. SCOPUS.

With regrards

Dr. Tanuja Srivastava
Executive Editor,
International Journal of Tomography & Statistics (IJTS)
http://www.ceser.res.in/ijts.html
www.ceserp.com

Subject: Inverse Problems, volume 25, issue 3/5, March/May 2009
From: Laura Smith <Laura.Smith@iop.org>
Date: Wed, 29 Apr 2009

Inverse Problems   March 2009   Volume 25, Issue 3
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PAPERS

Electro-magneto-encephalography for a three-shell model: dipoles and
beyond for the spherical geometry   G Dassios and A S Fokas

Tikhonov regularization in Banach spaces---improved convergence rates
results   Torsten Hein

Approximate source conditions for nonlinear ill-posed problems---chances
and limitations   Torsten Hein and Bernd Hofmann

On multiple level-set regularization methods for inverse problems
A DeCezaro, A Leit\~ao and X-C Tai

A Carleman estimate and the balancing principle in the quasi-
reversibility method for solving the Cauchy problem for the
Laplace equation   Hui Cao, Michael V Klibanov and Sergei V Pereverzev

An iterative representer-based scheme for data inversion in reservoir
modeling   Marco A Iglesias and Clint Dawson

On the identification of a coefficient function in a nonlinear wave
equation   Gen Nakamura, Michiyuki Watanabe and Barbara Kaltenbacher

On the performance of algorithms for the minimization of ℓ_1-
penalized functionals   Ignace Loris

Recovering a tensor on the boundary from polarization and phase
measurements   S Holman

Filtering for distributed mechanical systems using position
measurements: perspectives in medical imaging
Philippe Moireau, Dominique Chapelle and Patrick Le Tallec

Two analytical formulae of the temperature inside a body by using
partial lateral and initial data   Masaru Ikehata

An efficient Bayesian inference approach to inverse problems based on an
adaptive sparse grid collocation method
Xiang Ma and Nicholas Zabaras

Recovering the conductivity from a single measurement of interior data
Adrian Nachman, Alexandru Tamasan and Alexandre Timonov

****

TOPICAL REVIEW

Inverse transport theory and applications   Guillaume Bal

PAPERS

F John's stability conditions versus A Carasso's SECB constraint for
backward parabolic problems   Jinwoo Lee and Dongwoo Sheen

A non-local boundary value problem method for the Cauchy problem for
elliptic equations   Dinh Nho H\`ao, Nguyen Van Duc and D Lesnic

Fixed domain approaches in shape optimization problems with Dirichlet
boundary conditions   P Neittaanm\"aki, A Pennanen and D Tiba

Iterative multi-resolution retrieval of non-measurable equivalent
currents for the imaging of dielectric objects
P Rocca, M Donelli, G L Gragnani and A Massa

Iterative and range test methods for an inverse source problem for
acoustic waves Carlos Alves, Rainer Kress and Pedro Serranho

Physics-based models for measurement correlations: application to an
inverse Sturm--Liouville problem   Guillaume Bal and Kui Ren

Identifiability problems of defects with the Robin condition
Carlo Domenico Pagani and Dario Pierotti

Time reversal in thermoacoustic tomography---an error estimate
Yulia Hristova

A self-parametrizing partition model approach to tomographic inverse
problems   T Bodin, M Sambridge and K Gallagher

On uniqueness in diffuse optical tomography Bastian Harrach

CORRIGENDUM

Recovering the mass and the charge of a Reissner--Nordstr\"om black
hole by an inversescattering experiment
Thierry Daud\'e and Fran{\c{c}}ois Nicoleau

Individual articles are free for 30 days following their publication
on the web. This issue is available at:
http://www.iop.org/EJ/toc/0266-5611/25/3

Submitted by: Laura A Smith, Production Editor, laura.smith@iop.org

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Subject: Journal of Inverse and Ill-posed Problems, issue 1-2 (2009)
From: Albroscheit, Simon <Simon.Albroscheit@degruyter.com>
Date: Mon, 30 Mar 2009

Journal of Inverse and Ill-posed Problems   2009   Vol. 17, Issue 1
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Recent results on the quasi-optimality principle
F. Bauer and S. Kindermann

An iterative thresholding-like algorithm for inverse problems with
sparsity constraints in Banach space   K. Bredies

Regularization in Banach spaces - Convergence rates by approximative
source conditions   T. Hein

On a parameter identification problem in linear elasticity
T. Hein and M. Meyer

Modified Landweber iterations in a multilevel algorithm applied to
inverse problems in piezoelectricity   T. Lahmer

On the role of sparsity in inverse problems   D. A. Lorenz

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

An overview on convergence rates for Tikhonov regularization methods for
non-linear operators   C. Pöschl

Modulus of continuity and conditional stability for linear
regularization schemes   M. Schieck

Acceleration of the generalized Landweber method in Banach spaces via
sequential subspace optimization   F. Schöpfer and T. Schuster

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All issues are hosted on de Gruyter's new and integrated platform
www.reference-global.com

Subject: Contents, Nonlinear Analysis: Modelling and Control
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M.-E.M. Khedr, A.J. Chamkha and M. Bayomi

Regularities of Signal and Sensitivity Variation of a Reflection Fiber
Optopair Sensor Dependent on the Angle between Axes of Fiber Tips
V. Kleiza and J. Verkeli

A Modified Holling-Tanner Model in Stochastic Environment
A. Maiti and S. Pathak

Free Convection MHD Flow with Thermal Radiation from an Impulsively-
Started Vertical Plate   G. Palani and I.A. Abbas

Computational Modelling of Biosensors with an Outer Perforated Membrane
K. Petrauskas and R. Baronas

Effect of Peripheral Layer on Peristaltic Transport of a Micropolar
Fluid   K.M. Prasad and G. Radhakrishnamacharya

Numerical Analysis of the Eigenvalue Problem for One-Dimensional
Differential Operator with Nonlocal Integral Conditions
S. Sajavièius and M. Sapagovas

Quasistatic Adhesive Contact of Piezoelectric Cylinders
M. Sofonea and L. Chouchane

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

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

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

Subject: Online Table of Contents JOCAAA 2009, VOLUME 11
From: George A Anastassiou (ganastss) <ganastss@memphis.edu>
Date: Thu, 26 Feb 2009

Online contents for Journal of Computational Analysis and Applications
Vol. 11, Nos. 1-4, 2009:

http://www.eudoxuspress.com/images/TOC-JOCAAA-2009-VOL-11.pdf

Submitted by: George A. Anastassiou,Ph.D, Department of Mathematical
Sciences, The University of Memphis, Memphis,TN 38152,USA
------- end -------

Today's Editor:

    Patricia K. Lamm, Michigan State University

Today's Topics:

Submissions for IPNet Digest:

    Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

Subject: Fwd: Announcement of Fifth Int. Conf. Inverse Problems:
Modeling and Simulation"
From: ALEMDAR HASANOG(LU <alemdar.hasanoglu@gmail.com>
Date: Thu, 21 May 2009

The First Announcement
The Fifth International Conference,
Inverse Problems: Modeling and Simulation
May 24 -29, 2010, Antalya, Turkey

     The Fifth International Conference Inverse Problems: Modeling
and Simulation will be held during May 24-29, 2010, in one of the
distinguished hotels of the Mediterranean Region, in famous Lykia
World & Links Golf Antalya hotel (http://www.lykiaworldantalya.com/),
Antalya, Turkey.
     The proposed International Conference will be under the auspices
of the International Society for Inverse Problems in Science and
Engineering, and the leading international journals, Inverse Problems
in Science and Engineering, Inverse Problems, Inverse and Ill-Posed
Problems. The main aim of the Conference is to bring together all
classical and new inverse problems areas from various international
scientific schools, and to discuss new challenges of inverse problems
in current interdisciplinary sciences. The organizers of the
Conference, in particular Izmir University, Antalya Governorship and
Antalya Metropolis Municipality will work to put together an excellent
scientific program and social programs consisting of tours to historic
places and boat rides.

CHAIRS:
A. Hasanoglu (Hasanov) , Izmir University, Turkey

CO-CHAIRS:
G.S. Dulikravich, Florida International University, USA
B. Hofmann, Chemnitz University of Technology

S. Kabanikhin, Sobolev Institute of Mathematics, Russia

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J. McLaughlin (Rensselaer Polytechnic Institute, USA)
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M. Slodicka (Ghent University, Belgium)
G. Uhlmann (University of Washington, USA)
V.V. Vasin (Inst. Math. Mechanics, Ekaterinburg, Russia)
Y.-F. Wang (Chinese Academy of Sciences)
F. Zirilli (Universita di Roma La Sapienza, Italy)

Main topics:

Inverse Problems in: Biology and Bio-Medical Sciences,
Electromagnetics, Mechanics, Chemistry; Economics, Acoustics,
Geophysical Hydrodynamics (theory, algorithms, applications);
Imaging Techniques; Statistical and Probabilistic Methods;
Identification in Nonlinear Differential Equations; Design and Shape
Optimization; Inverse Scattering and Time Reversal; Inverse
Determination of Boundary and Initial Conditions; Computational
Methods; Identifiability Concepts; Regularization Techniques; Data
Analysis

Contact Address (and submitted by):
Professor Alemdar Hasanoglu (Hasanov)
Department of Mathematics and Computer Sciences,
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Tel.: +90 (232) 246-4949; Fax: +90 (263) 224-0909
E-mail: alemdar.hasanoglu@gmail.com;
alemdar.hasanoglu@izmir.edu.tr

Conference web page: http://www.ipms-conference.org

Subject: Open Chair in Inverse Problems and Applied Mathematics
From: Roland Potthast <r.w.e.potthast@reading.ac.uk>
Date: Mon, 29 Jun 2009 07:36:47 -0400

Dear Colleagues,

We are advertising a Chair in Applied Mathematics with the advert
below. We will also shortly be advertising a lectureship with a
similar spec.

In particular, I would like to encourage candidates with strong
background in inverse problems to apply.

Please feel free to pass this email on to any possibly relevant
candidates.

Kind regards,
Roland Potthast

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CHAIR IN APPLIED MATHEMATICS
UNIVERSITY OF READING

www.reading.ac.uk/maths/about/maths-jobvacancies.asp

Closing date: 10 July 2009

We are seeking an outstanding candidate for a Chair in Applied
Mathematics. Mathematics at Reading has an excellent research record
in: analysis of differential and integral equations; numerical
analysis and computational modelling, including CFD; inverse problems
and data assimilation; linear and nonlinear waves; theoretical polymer
physics, and other statistical physics; maths of cognitive
neuroscience, systems biology, and commerce. It has strong
interdisciplinary links, including joint appointments with
Meteorology, Biological Sciences, and Advanced Computing and Emerging
Technologies, and is a key partner in the Centre for Integrative
Neuroscience and Neurodynamics and in the National Centre for Earth
Observation.

Candidates should have an international research reputation in an area
of mathematics that resonates with our current research
activities. Some priority may be given to candidates who can
contribute to one or more of: inverse problems and data assimilation;
multiscale modelling; nonlinear analysis; continuous or discrete
dynamical systems (including stochastic systems) and their numerical
simulation; and who can support our existing interdisciplinary
interactions. The successful candidate will be expected to make an
outstanding contribution to the department's research outputs, to show
leadership in the generation of research funding, in the development
of the department's teaching portfolio, and in the support of junior
staff, researchers and postgraduate students, and to undertake
teaching and administrative duties at an appropriate level.

Informal enquiries are welcomed and can be made to Prof Simon
Chandler-Wilde, Head of Department, +44(0)118 3785017,
S.N.Chandler-Wilde@reading.ac.uk

Further details and application form:
www.reading.ac.uk/maths/about/maths-jobvacancies.asp

Submitted by:
Dr. Roland Potthast   Tel.: +44 (0)118 378 8436 (direct)
Reader in Mathematics   Tel.: +49 (0)173 54 28 716 (mobil)
University of Reading   http://www.scienceatlas.com/potthast/
Whiteknights, PO Box 220   r.w.e.potthast@reading.ac.uk
Berkshire, RG6 6AX, UK

Subject: New books: Layer Potential Techniques, Biomedical Imaging
From: "ammari@cmapx.polytechnique.fr" <ammari@cmapx.polytechnique.fr>
Date: Tue, 23 Jun 2009

NEW BOOKS:

Layer Potential Techniques in Spectral Analysis

Habib Ammari, Hyeonbae Kang, and Hyundae Lee

http://ams.org/bookstore?fn=20&arg1=survseries&item=SURV-153

The aim of this book is to give a self-contained presentation of an
asymptotic theory for eigenvalue problems using layer potential
techniques with applications in the fields of inverse problems, band
gap structures, and optimal design, in particular the optimal design
of photonic and phononic crystals. Throughout this book, it is shown
how powerful the layer potentials techniques are for solving not only
boundary value problems but also eigenvalue problems if they are
combined with the elegant theory of Gohberg and Sigal on meromorphic
operator-valued functions. The general approach in this book is
developed in detail for eigenvalue problems for the Laplacian and the
linear elasticity system in the following two situations: one under
variation of domains or boundary conditions and the other due to the
presence of inclusions.

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An Introduction to Mathematics of Emerging Biomedical Imaging
Series: Math.& Appl., Vol. 62 Ammari, Habib

2008, X, 198 p. 16 illus., Softcover

http://www.springer.com/math/biology/book/978-3-540-79552-0

This is the first book to highlight the most recent mathematical
developments in emerging biomedical imaging techniques. The main
focus is on emerging multi-physics and multi-scales imaging
approaches. For such promising techniques, it provides the basic
mathematical concepts and tools for image reconstruction.

Written for: Researchers and graduate students in applied
mathematics, partial differential equations, inverse problems,
integral equations, numerical analysis, and biomedical engineering

Web: http://www.cmap.polytechnique.fr/~ammari

See also:
Polarization and Moment Tensors
http://www.springer.com/math/applications/book/978-0-387-71565-0

Subject: New monograph: Fractional Differentiation Inequalities
From: "George A Anastassiou (ganastss)" <ganastss@gmail.com>
Date: Fri, 19 Jun 2009

NEW MONOGRAPH:
Fractional Differentiation Inequalities, by George Anastassiou

Publisher: Springer

with applications to Fractional ODE/PDE, 686 pages

for more please visit
http://www.springer.com/math/dyn.+systems/book/978-0-387-98127-7

Submitted by: George A. Anastassiou,Ph.D
Department of Mathematical Sciences
The University of Memphis,Memphis,TN 38152, USA
tel:(INT 001)- 901-678-3144 office

Inverse Problems   June 2009   Volume 25, Issue 6
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uniqueness, stability and algorithm
Gert Van Gompel, Michel Defrise and K Joost Batenburg

Inferring basic parameters of the geodynamo from sequences of polarity
reversals   M Fischer, G Gerbeth, A Giesecke and F Stefani

The factorization method for EIT in the case of mixed inclusions
Susanne Schmitt

RETRACTION

Surface impedance determination of an object located over a planar PEC
surface and its use in shape reconstruction
Gül Seda Ünal, Ali Yapar and Ibrahim Akduman

Individual articles are free for 30 days following their publication
on the web. This issue is available at:
http://www.iop.org/EJ/toc/0266-5611/25/6

Subject: Contents, J. Inverse and Ill-posed Problems, issues 3-4 (2009)
From: "Simon.Albroscheit@degruyter.com"
Date: Tue, 16 Jun 2009

Journal of Inverse and Ill-posed Problems 2009 Vol 17, Issue 3
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Some approaches to a numerical solution for the multidimensional
inverse kinematic problem of seismics with inner sources
Yu. E. Anikonov, V. V. Bogdanov, E. Yu. Derevtsov,
V. L. Miroshnichenko, N. B. Pivovarova, L. B. Slavina

Iterative methods for solving a nonlinear boundary inverse problem in
glaciology   S. Avdonin, V. Kozlov, D. Maxwell, M. Truffer

Global in time results for a class of inverse problems
F. Colombo

On stability of an inverse spectral problem for a nonsymmetric
differential operator   W. Ning

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Journal of Inverse and Ill-posed Problems 2009 Vol 17, Issue 4
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External sources of resonance type in X-ray tomography
D. S. Anikonov

Generalized Sommerfeld problem for time fractional diffusion equation:
analytical and numerical approach   A. N. Bondarenko, D. S. Ivaschenko

Iterated soft shrinkage with adaptive operator evaluations
T. Bonesky, P. Maass

Convergence rates results for recovering the volatility term structure
including at-the-money options   T. Hein

Convergence rate analysis for parameter identification with
semi-linear parabolic equation   Li Jing, Liu Zhenhai

Simultaneous reconstruction of permittivity and conductivity
A. L. Karchevsky

A family of preconditioned iteratively regularized methods for
nonlinear minimization   A. Smirnova, R. A. Renaut

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Systems   A. Benabdallah

Statistical Classification of the Observation of Nuggetless Spatial
Gaussian Process with Unknown Sill Parameter   K. Ducinskas

Generalized Adaptive Backstepping Synchronization for Non-identical
Parametrically Excited Systems
B.A. Idowu, U.E. Vincent, A.N. Njah

Oscillation of Non-Linear Systems Close to Equilibrium Position in the
Presence of Coarse-Graining in Time and Space   G. Jumarie

Effect of Time-Delay on a Ratio-Dependent Food Chain Model
B. Patra, A. Maiti, G.P. Samanta

Finite Element Analysis of Mixed Convection in a Rectangular Cavity
with a Heat-Conducting Horizontal Circular Cylinder
Md.M. Rahman, M.A. Alim, M.A.H. Mamun

MHD Effects on Non-Darcy Forced Convection Boundary Layer Flow past a
Permeable Wedge in a Porous Medium with Uniform Heat Flux
A.M. Rashad, A.Y. Bakier

Multiple Solutions in Fluid Dynamics   L.-S. Yao.

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

------- end -------

Today's Editors:

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

Today's Topics:

    SIAM Conference on Imaging Science
    METTI IV: Thermal Measurements and Inverse Techniques
    SIAM Conference on Mathematical Aspects of Materials Science
    SIAM/ACM Joint Conference on Geometric and Physical Modeling
    SIAM Conference on Mathematics for Industry
    Gene Golub SIAM Int'l Summer School in Num. Linear Algebra
    New Developments for the Journal Inverse Problems
    Table of Contents: Inverse Problems
    Table of Contents: Appl. Analysis, Special Issue: Inverse Problems

Submissions for IPNet Digest: E-mail to ipnet-digest@math.msu.edu

Information about IPNet, including subscription changes:

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

Subject: SIAM Conference on Imaging Science (IS10) - CFP Deadlines
From: Kirsten Wilden <Wilden@siam.org>
Date: Fri, 17 Jul 2009

Subject:
SIAM Conference on Imaging Science (IS10) - Call for Papers

Conference Name:
SIAM Conference on Imaging Science (IS10)

Location:
Holiday Inn Chicago Mart Plaza, Chicago, Illinois

Dates:
April 12-14, 2010

Invited Speakers:
Guillermo Sapiro, University of Minnesota
Amnon Shashua, The Hebrew University of Jerusalem, Israel
Jean-Luc Starck, CEA/Saclay, France
Gabriele Steidl, Universität Mannheim, Germany
William Symes, Rice University
Alain Trouvé, Ecole Normale Supérieure, France

The Call for Presentations for this conference is available at:
http://www.siam.org/meetings/is10/

                        Deadlines
September 14, 2009: Minisymposium proposals
October 12, 2009: Abstracts for contributed and minisymposium speakers

For additional information, contact the SIAM Conference Department at
meetings@siam.org.

FRANCO-BRAZILIAN ADVANCED SCHOOL

METTI IV - THERMAL MEASUREMENTS AND INVERSE TECHNIQUES
Pertinent use of experiments and models

Angra dos Reis, State of Rio de Janeiro, November 8-13, 2009

    www.mettischool.org

Recent advances in both thermal instrumentation and modeling permits
the combination of efficient experimental procedures and of indirect
measurements, within the research paradigm of inverse
problems. Although initially associated with the estimation of
boundary heat fluxes by using temperature measurements taken inside a
heated body, inverse analyses are nowadays encountered in single and
multi-mode heat transfer problems, dealing with multi-scale
phenomena. Applications range from the estimation of constant heat
transfer parameters to the mapping of spatially and timely varying
functions, such as heat sources, fluxes and thermophysical
properties.

The objective of the Franco-Brazilian Advanced School METTI IV is to
promote the theory and application of inverse methods in thermal
engineering. This Advanced School is aimed at engineers, graduate
students and researchers, working both in the academia and
industry. Expected attendance is of one hundred participants. The
official language is English.

The METTI (Thermal Measurements and Inverse Techniques) Group, a
division of the Société Française de Thermique (French Heat Transfer
Society), periodically organizes such schools. Previous versions took
place in France in 1995, 1999 and 2005. For the first time this school
is organized outside France, as an activity of the Year of France in
Brazil (http://anodafrancanobrasil.cultura.gov.br/). The School METTI
IV is promoted by Société Française de Thermique SFT
(http://www.sft.asso.fr) and Associação Brasileira de Engenharia e
Ciências Mecânicas ABCM (http://www.abcm.org.br/).

The METTI School is organized in theoretical courses and practical
hands-on tutorial sessions, covering fundamental and advanced material
in inverse problems and measurement techniques, specifically applied
to heat transfer problems of practical interest. Courses and tutorial
sessions will be jointly given by French and Brazilian internationally
recognized specialists in the area.

On each day, two theoretical courses will be given sequentially in the
morning. The tutorial sessions will be given in the evenings. The
practical character limits the number of 20 participants per tutorial
session. Therefore, in each evening the School participants will have
to select from a list of tutorial sessions that will take place
simultaneously. Afternoons will be free for interaction and technical
discussions between participants.

A Workshop will take place simultaneously with the METTI School. This

workshop will be devoted to open problems or new research trends in
inverse heat transfer. Papers in this workshop will be presented in
poster form.

For more information, please contact:

Olivier Fudym
RAPSODEEE FRE CNRS 3213
Ecole des Mines d'Albi
81013 Albi Cedex 09,France
Tel.: 33 (0) 5 63 49 30 24
fudym@mines-albi.fr

Helcio R. B. Orlande
DEM/PEM - Politécnica/COPPE
Universidade Federal do Rio de Janeiro, UFRJ
Cx. Postal 68503 – Cidade Universitária
Rio de Janeiro, RJ, Brasil – 21945-970
Tel : 55-21-2562-8405
helcio@mecanica.ufrj.br

Subject: SIAM Conference on Mathematical Aspects of Materials Science
From: Kirsten Wilden <Wilden@siam.org>
Date: Wed, 22 Jul 2009

Subject: Call for Papers -
SIAM Conference on Mathematical Aspects of Materials Science (MS10)

Conference Name:
SIAM Conference on Mathematical Aspects of Materials Science (MS10)

Location:
Doubletree Hotel Philadelphia, Philadelphia, Pennsylvania

Dates:
May 23-26, 2010

Invited Presentations (partial list):
Basil Audoly, University Paris VI, France
M. Carme Calderer, University of Minnesota
Selim Esedoglu, University of Michigan
James Evans, Ames Laboratory and Iowa State University
Mitch Luskin, University of Minnesota
Arun Majumdar, Lawrence Berkeley National Laboratory
   and University of California at Berkeley
Alexander Mielke, Humboldt-Universität zu Berlin, Germany
Monica Olvera de la Cruz, Northwestern University
Christopher Schuh, Massachusetts Institute of Technology
Frans Spaepen, Harvard University

The Call for Presentations for this conference is available at:
http://www.siam.org/meetings/ms10/

                         Deadlines

SUBMISSION DEADLINES
October 26, 2009: Minisymposium proposals
November 23, 2009: Abstracts for contributed and minisymposium speakers

TRAVEL FUND APPLICATION DEADLINE
October 26, 2009: SIAM Student Travel Award and Post-doc/Early Career
Travel Award Applications

For additional information, contact the SIAM Conference Department at
meetings@siam.org.

Subject: Registration & Program - 2009 SIAM/ACM Conf. Geom/Phys Modeling
From: Kirsten Wilden <Wilden@siam.org>
Date: on, 27 Jul 2009

Subject:
Registration and Program Now Available for the 2009 SIAM/ACM Joint
Conference on Geometric and Physical Modeling

Conference Name:
2009 SIAM/ACM Joint Conference on Geometric and Physical Modeling

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

Dates:
October 5-8, 2009

Invited Speakers:
David Baraff, Pixar Animation Studios
Ted D. Blacker, Sandia National Laboratories
Leonidas Guibas, Stanford University
Baining Guo, Microsoft Research Asia
Stefanie Hahmann, Grenoble Institute of Technology, France
Bert Jüttler, Johannes Kepler University, Austria

Pierre Bézier Award Recipients
Richard F. Riesenfeld, University of Utah
Elaine Cohen, University of Utah

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Travel Support, Registration and Hotel Reservation Deadlines

Travel Support Application Deadline: August 10, 2009
Pre-Registration Deadline: September 7, 2009
Hotel Reservation Deadline: September 7, 2009

Details regarding travel support are available:
http://www.siam.org/meetings/gdspm09/tsupport.php

Registration and the preliminary program for this conference are
available:
http://www.siam.org/meetings/gdspm09

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For additional information, contact the SIAM Conference Department at
meetings@siam.org.

Subject: Registration & Program - SIAM Conf. Mathematics for Industry
From: Kirsten Wilden <Wilden@siam.org>

Date: Mon, 27 Jul 2009

Subject:
Registration and Program Now Available for the SIAM Conference on
Mathematics for Industry: Challenges and Frontiers

Conference Name:
SIAM Conference on Mathematics for Industry: Challenges and Frontiers

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

Dates:
October 9-10, 2009

Invited Speakers:
Robert Almgren, Courant Institute of Mathematical Sciences, New York
University and Quantitative Brokers
James Carazzone, Exxon Production Research Company
David R. Ferguson, Access Analytics
Kenneth Fordyce, IBM Systems and Technology Group
Fosca Giannotti, Institute of Information Science and Technologies
(ISTI), Italy
Karl Kempf, Intel Corporation

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Travel Support, Registration and Hotel Reservation Deadlines

Travel Support Application Deadline: August 10, 2009
Pre-Registration Deadline: September 7, 2009
Hotel Reservation Deadline: September 7, 2009

Details regarding travel support are available:
http://www.siam.org/meetings/tsupport.php

Registration and the preliminary program for this conference are
available:
http://www.siam.org/meetings/mi09/

  ****

For additional information, contact the SIAM Conference Department at
meetings@siam.org.

Subject: First announcment Gene Golub SIAM summer school 2010
From: "Daniel B. Szyld" <szyld@temple.edu>
Date: Wed, 22 Jul 2009

FIRST ANNOUNCEMENT:

Gene Golub SIAM Summer School 2010
International Summer School on Numerical Linear Algebra (ISSNLA)
Fasano (Bari), Italy 7-18 June 2010
http://www.ba.cnr.it/ISSNLA2010

The first Gene Golub SIAM Summer School will take place
at the Centro Internazionale Alti Studi Universitari (CIASU),
in Fasano (Bari), Italy.

The following four courses will be given during the two weeks
from the 7th to the 18th of June 2010.

  - Minimizing communication in numerical linear algebra,
    James Demmel, University of California at Berkeley, USA

  - Nonlinear eigenvalue problems: analysis and numerical solution,
    Volker Mehrmann, Technische Universitaet Berlin, Germany.

  - From Matrix to Tensor: The Transition to Computational Multilinear
Algebra,
    Charles Van Loan, Cornell University, Ithaca, New York, USA.

  - Linear Algebra and Optimization,
    Margaret H. Wright, Courant Institute, New York University, USA

The summer school is geared towards doctoral students. There will
be a limit of 50 students. There will be no registration fee.
Funding for local accommodations and/or local expenses will be available
for some of the participants. Limited travel funds may also be available.
Deadline for applicatiosn is 1 February 2010.
For more information see: http://www.ba.cnr.it/ISSNLA2010

This summer school is the second ISSNLA organized by the SIAM Activity
group on Linear Algebra. The first took place in 2008
(http://www.simumat.es/SIAGLA2008).

Subject: New Developments for the Journal Inverse Problems
From: Kate Watt <Kate.Watt@iop.org>
Date: Tue, 28 Jul 2009

Inverse Problems has enjoyed many exciting developments recently,
including the publication of special sections, topical reviews and the
2008 Editorial Board Highlights, as well as our successful move to
monthly publication and achieving another impressive increase in
impact factor. We also have some interesting plans to look forward to,
including an issue dedicated to specially commissioned topical
reviews, which will be published in December.

To find out more about all of the journal's developments, read our
online newsletter here:
http://herald.iop.org/IPnewsletter09/m196/hxp/188488/link/2715

If you would like any more information about the journal, or if you
have any feedback, please get in touch by e-mailing us at ip@iop.org

Best wishes,

Kate Watt
Publisher
Inverse Problems
Web: http://www.iop.org/journals/ip
E-mail: ip@iop.org

Subject: Inverse Problems, volume 25, issue 8, August 2009
From: Emma Avery <Emma.Avery@iop.org>
Date: Tue, 28 Jul 2009

Inverse Problems   August 2009   Volume 25, Issue 8
                          Table of Contents

PAPERS

Applicable Analysis: Special Issue: Inverse Problems Volume 88, Issue 5
          Table of Contents

On the evaluation of dilatometer experiments
Dietmar Hömberg, Nataliya Togobytska and Masahiro Yamamoto

Inverse problem for a parabolic system with two components by
measurements of one component
Assia Benabdallah, Michel Cristofol, Patricia Gaitan and
Masahiro Yamamoto

An inverse problem and an observability inequality for the Lamé system
with stress boundary condition
Oleg Yu. Imanuvilov and Masahiro Yamamoto

Inverse heat source problem from time distributing overdetermination
Kenichi Sakamoto and Masahiro Yamamoto

An inverse resistivity problem: 1. Lipschitz continuity of the gradient
of the objective functional   Balgaisha Mukanova

An inverse resistivity problem: 2. Unilateral convexity of the
objective functional   Balgaisha Mukanova

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Today's Editor: Patricia K. Lamm, Michigan State University

Today's Topics:

    Summer School: Computational Solution of Inverse Problems
    Workshop: Nonlinear Physics -- Theory and Experiment
    New Book: Nonlinear Least Squares for Inverse Problems
    PhD Studentships in Inverse Problems: Tomography (RTT, EIT)
    Postdoc: Reconstruction Methods for 3D Tomography (EIT)
    Postdoc: Surface Waves, Early Tsunami Detection
    Table of Contents: Inverse Problems
    Table of Contents: Journal of Inverse and Ill-posed Problems
    Table of Contents: Nonlinear Analysis: Modelling and Control

Submissions for IPNet Digest:

    Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

Subject: Summer school on computational solution of inverse problemsFrom:
Samuli Siltanen <samuli.siltanen@helsinki.fi>
Date: Thu, 24 Sep 2009

Summer school for graduate students and postdocs:
"Computational solution of inverse problems" (FICS 2010)

University of Helsinki, Finland
June 28 - July 2, 2010

There will be four minicourses:

    Nuutti Hyvönen (Helsinki University of Technology, Finland):
    Factorization and source support methods for electrical impedance
    tomography

    Jari Kaipio (University of Auckland, New Zealand):
    Bayesian framework for inverse problems

    Barbara Kaltenbacher (University of Graz, Austria):
    Iterative solution methods for inverse problems

    Kim Knudsen (Technical University of Denmark):
    D-bar methods for nonlinear inverse problems.

In addition, participants can give contributed talks.

More information is available at the school website
https://wiki.helsinki.fi/display/mathstatKurssit/FICS+2010

Subject: Workshop "Nonlinear Physics.Theory and Experiment. VI."
From: Maria Concetta Gerardi <Maria.Concetta.Gerardi@le.infn.it>
Date: Mon, 5 Oct 2009

NONLINEAR PHYSICS. THEORY AND EXPERIMENT. VI
Gallipoli, June 23-July 3, 2010

FIRST ANNOUNCEMENT

The theory of solitons which began as an investigation of a very
interesting but particular class of nonlinear phenomena in physics now
involves a broad variety of mathematical methods that allow one to study
a wide range of phenomena and problems that arise in physics, technology,
biology and pure and applied mathematics.

The purpose of the Workshop is to bring together qualified
scientists and young researchers who study nonlinear physics,
mathematics or science. A goal of the meeting is to offer researchers
the opportunity to discuss recent developments and achievements, as
well as to discuss future perspectives, in the fascinating natural
environment of Southern Italy.

As stated in the title of the Workshop, emphasis will be
placed on both theory and experiment. An objective is to offer to the
nonlinear scientific community a truly interdisciplinary workshop as a
privileged place for scientific interaction among theoreticians and
experimentalists. The organizers of the Workshop have observed the
increasing relevance of solitons and other nonlinear effects in
laboratory experiments and applications. Applications to nonlinear
optics, molecular dynamics, fluid dynamics, plasma waves,
hydrodynamics, quantum electronics, solid state physics, string
theory, gravity etc. are of interest. Mathematical approaches
including continuous and discrete nonlinear systems, classical and
quantum, will be considered. Specific theoretical topics can cover
inverse scattering, hamiltonian structures, geometrical approaches,
Painlevé property, symmetries... The list is to be considered open,
especially to potentially new mathematical methods and applications.

This Workshop is part of thirty years of active participation
by the University of Lecce (now University of Salento) in developing
international scientific cooperation in Nonlinear Science. A meeting
entitled "Nonlinear Evolution Equations and Dynamical Systems"
(NEEDS for short) was organized in Lecce in 1979. Successively three
other NEEDS Workshops were organized in Gallipoli in 1985, 1991 and
1993, the Workshops entitled "Nonlinear Physics. Theory and
Experiment" in Gallipoli in 1995, 2002, 2004, 2006 and 2008, and a
Workshop entitled "Nonlinearity, Integrability and All That. Twenty
Years After NEEDS'79" in Gallipoli in 1999.

The Workshop will take place from Wednesday June 23 (arrival
day) to Saturday July 3, (departure day), 2010, at the Ecoresort Le
Sirené (Gallipoli Bay) near Lecce, Italy, with all needed facilities
as conference and lecture hall, by a sandy beach in a beautiful
setting.

An all-inclusive fee of Euro 1.150,00 will cover the cost of
registration (Euro 150), meals and lodging during the Workshop (in
double occupancy rooms with private facilities) and the transportation
from Lecce terminal or Brindisi International Airport to Gallipoli and
back (for participants arriving on June 23 and leaving on July 3). The
all-inclusive rate for accompanying persons is Euro 1.000.

Persons interested in participating will receive the second

announcement with additional details and the registration form by
contacting the Workshop Secretary or checking at
http://www.fisica.unisalento.it/nonlinear6/
(to appear in October 2009).

Organizers: Marco Boiti and Flora Pempinelli, and Boris
Konopelchenko, Dipartimento di Fisica, Università del Salento, 73100
Lecce,
marco.boiti@le.infn.it, flora.pempinelli@le.infn.it,
konopel@le.infn.it.

Co-organizers: Luis Martinez-Alonso, Departamento de Fisica
Teorica II, Universidad Complutense, Madrid (Spain), luism@fis.ucm.es
; Andrei K. Pobgrebkov, Steklov Mathematical Institute, Moscow,
pogreb@mi.ras.ru.

Workshop Secretariat: Maria Concetta Gerardi, Dipartimento di Fisica,
Università del Salento, 73100 Lecce, Italy; Phone and FAX +39 0832
297467, also FAX +39 0832 297505,
maria.concetta.gerardi@le.infn.it.

Sponsors: Università del Salento - Consorzio EINSTEIN - INFN

Submitted by: Maria Concetta Gerardi Segretaria Scientifica
Dip. Fisica Phone & Fax +39 0832 297467 e-mail
maria.concetta.gerardi@le.infn.it
http://www.fisica.unisalento.it/Mconcetta

Subject: New book on inverse problems
From: Guy Chavent <Guy.Chavent@inria.fr>
Date: Mon, 12 Oct 2009

NEW BOOK:

Nonlinear Least Squares for Inverse Problems,
Theoretical Foundations and Step-by-Step Guide for Applications

Guy Chavent

with 24 figures.

http://www.springer.com/math/book/978-90-481-2784-9

This book provides an introduction into the least squares resolution
of nonlinear inverse problems. The first goal is to develop a
geometrical theory to analyze nonlinear least square (NLS) problems
with respect to their quadratic wellposedness, i.e. both wellposedness
and optimizability. Using the results, the applicability of various
regularization techniques can be checked. The second objective of the
book is to present frequent practical issues when solving NLS
problems. Application oriented readers will find a detailed analysis
of problems on the reduction to finite dimensions, the algebraic
determination of derivatives (sensitivity functions versus adjoint

method), the determination of the number of retrievable parameters, the choice of parametrization (multiscale, adaptive) and the optimization step, and the general organization of the inversion code. Special attention is paid to parasitic local minima, which can stop the optimizer far from the global minimum: multiscale parametrization is shown to be an efficient remedy in many cases, and a new condition is given to check both wellposedness and the absence of parasitic local minima.

For readers that are interested in projection on non-convex sets, Part II of this book presents the geometric theory of quasi-convex and strictly quasi-convex sets. Quasi-convex sets can be recognized by their finite curvature and limited deflection and possess a neighborhood where the projection is well-behaved.

Throughout the book, each chapter starts with an overview of the presented concepts and results.

Subject: Two PhD studentships
From: Bill Lionheart <bill.lionheart@manchester.ac.uk>
Date: Mon, 28 Sep 2009

We have two funded PhD studentships in inverse problems available to start as soon as possible at the University of Manchester

 The first project is to investigate the potential for combining X-ray scatter information and X-ray tomographic information during simultaneous data acquisition in Real-Time Tomography (RTT) systems for the detection of explosive materials. The main purpose is to explore the potential for combining high speed scatter and transmission tomography systems for automated explosives detection. The position is in collaboration with Rapiscan Systems and is open to any suitable qualified candidate

 The second is on reconstruction of Electrical Impedance Tomography lung images. Monitoring lungs during mechanical ventilation is an important application of EIT attracting considerable attention from the intensive care community. This project is funded by an EPSRC CASE studentship with Philips Research and requires UK residency (see website for details).

Details of these opportunities are can be seen on
http://www.maths.manchester.ac.uk/postgraduate/pgadmission/funding.html

Submitted by: Bill Lionheart, University of Manchester
http://www.maths.manchester.ac.uk/~bl

Subject: Postdoc in Reconstruction Methods for 3D Electrical
     Impedance Tomography
From: Per Christian Hansen <pch@imm.dtu.dk>
Date: Wed, 2 Sep 2009

Postdoc in Reconstruction Methods for 3D Electrical Impedance Tomography

A PostDoc position in Reconstruction Methods for 3D Electical Impedance Tomography is available from January 1, 2010, with a duration of 1 year and a possible extension to 2 years. The project is a collaboration between DTU Informatics and DTU Mathematics at the Technical University of Denmark. A full description is available at:

http://www.dtu.dk/English/About_DTU/vacancies.aspx?guid=896df604-37f7-4c25-8c0f-c84f11d2b6e1

The aim of this project is to develop, implement, and investigate fast algorithms for 3D Electrical Impedance Tomography (EIT). The underlying non-linear mathematical problem is severely ill-posed, and hence a useful reconstruction algorithm must incorporate prior information and regularization. In this project we will develop both the necessary mathematical theory for a robust reconstruction algorithm and an efficient numerical implementation.

The research will involve:
 - Development of theory for efficient numerical computations for EIT in 3D.
 - Numerical implementations of reconstruction algorithms.
 - Test of numerical algorithms on collected data.

The candidate should have a background in applied mathematics, electrical engineering, or scientific computing and a PhD degree (or equivalent), and should demonstrate qualifications or interests in the following:

 - Mathematical theory for inverse problems.
 - Numerical methods for large-scale inverse problems.
 - Reconstruction methods for EIT.
 - Cross-disciplinary research work.

Further information may be obtained from
 - Professor Per Christian Hansen, phone: +45 45253097, pch@imm.dtu.dk
 - Associate Professor Kim Knudsen, phone: +45 45253026,
    k.knudsen@mat.dtu.dk.
You can read more about the two departments at www.imm.dtu.dk and www.mat.dtu.dk.

The application should be submitted on-line at the homepage no later than October 15, 2009. Please open the link "apply for this job online" at the bottom of the page, and fill in the application form and attach your application and CV. Material that should be given consideration in the assessment must also be attached.

All interested candidates irrespective of age, gender, race, religion, or ethnic background are encouraged to apply.

Submitted by: Professor Per Christian Hansen
Section for Scientific Computing
DTU Informatics, Technical University of Denmark
Tel +45 45.25.30.97, Fax +45 45.88.26.73
http://www.imm.dtu.dk/~pch

Subject: Pos Doc in Surface Waves, Early Tsunami Detection
From: yehuda <agnon@technion.ac.il>
Date: Mon, 7 Sep 2009

Post-doctoral Scholarship sponsored by
Technion-Israel Institute of Technology
Department of Civil and Environmental Engineering

Post Doc - Surface Waves in a Compressible Ocean with an Application

to Early Tsunami Detection

Prof. Michael Stiassnie is seeking a suitable qualified student to undertake a Post-Doctoral study in developing theoretical techniques to study surface waves in a compressible ocean, under his supervision.

About Technion:

For more than eight decades, the Technion-Israel Institute of Technology, which is located in Haifa, has been Israel's primary technological university and the largest center of applied research. It is ranked among the leading technological universities in the world. The Department of Civil and Environmental Engineering has 60 senior faculty members active in research and education, and they currently supervise the education of ~900 undergraduate students, ~240 master degree students, ~85 doctor students, and ~10 post-doctoral students.

Project Abstract:

The overwhelming majority of ocean-waves studies ignore the minute compressibility of the water, which is expected to have, and in most cases has, negligible effects on the main physical processes. However, a rather straightforward analysis of the linearized problem in constant water depth reveals that for any wave period smaller than 4 times the water depth to the speed of sound ratio; accounting for compressibility gives rise to at least one additional propagating mode. This is rather different from the situation in an incompressible ocean, for which only one propagating mode exists. A disturbance at the ocean floor, such as caused by a submarine earthquake, produces many different modes. Most of this modes are non-propagating (evanescent), and of local importance only. However, the Gravity-Acoustic mode, and the leading Acoustic-Gravity mode propagate away from the earthquake site, and travel to a great distance. The Acoustic-Gravity wave travels significantly faster than the Gravity-Acoustic wave, and thus, is a possible candidate for an early warning about the approach of the Gravity-Acoustic wave which evolves into a tsunami when it hits the coast. The main goals of this research are:

(1) provide a ground-breaking theoretical study of the physics of surface-waves on a compressible fluid. The relatively small amount of published material on this topic seems to have left a "vast-territory" which awaits its ground to be broken; and (2) to investigate the application of utilizing the Acoustic-Gravity waves for early detection of tsunami (the Gravity-Acoustic wave). This is of a certain risk, since it is not clear that, in case of realistic scenarios and geometries, the free surface-elevation, the flow velocities, or the pressure of the Acoustic-Gravity waves will be strong enough, compared to the background noise, to enable their measurement. If however, they will be found measurable by existing instruments, and enable early detection of tsunamis, then the high-gain is self evident.

Selection Criteria

1.   Ph.D. degree related to fluid-mechanics, obtained not earlier than 31.12.2007 (essential)
2.   Strong analytical and mathematical skills (essential)
3.   A good working knowledge of programming (desirable)

4.   A good knowledge of English (desirable)
5.   Experience in water-waves related research (advantage)

Commencement Date: January 2010 or earlier

Scholarship: Between US$ 18,000 to US$ 30,000 (depending on qualifications and background) per annum, tax exempt.

Duration: two or three years

Application and Contact

Professor Michael Stiassnie
Department of Civil and Environmental Engineering
Division of Environmental, Water and Agricultural Engineering
Technion-Israel Institute of Technology
Haifa 32000, Israel
Tel: +972-4-8293361 ; Fax: +972-4-8228898
e-mail: miky@tx.technion.ac.il
http://www.technion.ac.il/~cee/stiassnie

Analytical inversion of the Compton transform using the full set of available projections   Voichita Maxim, Mirela Frandes and Remy Prost

Solvability of a problem of integral geometry via an inverse problem for a transport-like equation and a numerical method
Arif Amirov, Mustafa Yildiz and Zekeriya Ustaoglu

Experimental design and estimation of growth rate distributions in size-structured shrimp populations   H T Banks, Jimena L Davis, Stacey L Ernstberger, Shuhua Hu, Elena Artimovich and Arun K Dhar

Iteration methods on sideways parabolic equations
Youjun Deng and Zhenhai Liu

Regularization parameter selection methods for ill-posed Poisson maximum likelihood estimation   Johnathan M Bardsley and John Goldes

Efficient solution of a three-dimensional inverse heat conduction problem in pool boiling
Herbert Egger, Yi Heng, Wolfgang Marquardt and Adel Mhamdi

Numerical studies of the inverse Born series for diffuse waves
Shari Moskow and John C Schotland

Explicit isospectral flows for the AKNS operator on the unit interval
L Amour

Sensitivity computation of the ℓ_{1} minimization problem and its application to dictionary design of ill-posed problems
L Horesh and E Haber

On time reversal mirrors
Albert C Fannjiang

On the Marchenko inverse scattering procedure with partial information
on the potential   Alexei Rybkin

Some Ambarzumyan-type theorems for Dirac operators
Chuan-Fu Yang and Xiao-Ping Yang

SVD-tail: a new linear-sampling reconstruction method for inverse
scattering problems
M'Barek Fares, Serge Gratton and Philippe L Toint

CONFERENCE ANNOUNCEMENT
International Conference on Inverse Problems

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Journal of Inverse & Ill-posed Problems   2009   Volume 17, Issue 5
                        Table of Contents

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Journal of Inverse & Ill-posed Problems   2009   Volume 17, Issue 6
                        Table of Contents

5th International Conference Inverse Problems: Modeling and Simulation

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Subject: Table of Contents, Nonlinear Analysis: Modelling and Control
From: Romas Baronas <romas.baronas@mif.vu.lt>
Date: Sun, 13 Sep 2009

Nonlinear Analysis: Modelling & Control   2009   Vol. 14, No. 3
                     Table of Contents

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

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

A free on-line edition is available at:
http://www.lana.lt/journal/issues.php
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IPNet Digest   Volume 16, Number 06   December 17, 2009

Today's Editors:

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

Today's Topics:

    Conference: Inverse Problems in Science & Engineering
    Symposium: Inverse Problems, Design and Optimization
    Conferences: Mini-symposia on Inverse Problems (ECCOMAS)
    Workshop: Optimization and Inverse Problems in Electromagnetism
    SIAM Conference: Nonlinear Waves and Coherent Structures
    SIAM Conference: Life Sciences
    ACM-SIAM Symposium: Discrete Algorithms
    Conference: Computational Neuroscience
    Symposium: Mathematical Theory of Networks and Systems
    Positions: Ph.D. Studentships in Inverse Problems Group
    Positions: Tomographic Reconstruction Scientists
    Special Issue: Applicable Analysis Issue Devoted to Inverse Problems
    Special Issue: Inverse Problems 25th Anniversary Issue, Contents
    Table of Contents: Inverse Problems
    Table of Contents: Electronic Transactions on Numerical Analysis
    Table of Contents: Nonlinear Analysis: Modelling & Control

Submissions for IPNet Digest:

    Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

Subject: 2010 Conference for Inverse Problems in Science & Engineering
From: "Dolan, Kirk" <dolank@anr.msu.edu>
Date: Sun, 18 Oct 2009

2010 Inverse Problems Symposium

The 2010 Inverse Problems Symposium will be held June 6-8th at
Michigan State University. This symposium is the 23nd in the series
of national and international meetings on Inverse Problems that were
initiated at MSU in 1988 by Dr. James Beck. The successful 2009
symposium was also held at MSU in June, 2009. Presenters from both
the U.S. and abroad attended. The 2010 symposium in East Lansing,
Michigan, will retain the single session format of these symposia, and
will have sessions addressing both the theoretical and applied aspects
of inverse problems.

We are interested in a wide range of topics in engineering,
agriculture, natural sciences, mathematics, statistics, etc. We will
send more information on abstract submission and registration soon.
The website is

http://www.inverseproblems2010.org/

The program committee is:

Ben Blackwell
Kevin Dowding, Sandia National Labs
Keith Woodbury, University of Alabama
Jon Wooley, University of Alabama
Filippo Demonte, University of L'Aquila, Italy
Indrek Wichman, Michigan State University
Lalita Udpa, Michigan State University
Kevin Cole, University of Nebraska, Lincoln
Bob McMasters, Virginia Military Institute
Neil Wright, Michigan State University
Renfu Lu, Michigan State University
Seungik Baek, Michigan State University
Brian Feeny, Michigan State University

We look forward to a successful symposium with your participation.

Kirk Dolan (Conference Chairperson), Jongeun Choi (Co-Chair),
Cara Brooks (Co-Chair) and James Beck (Honorary Chairperson)

Kirk Dolan
Associate Professor, Department of Food Science & Human Nutrition
Department of Biosystems & Agricultural Engineering
135 Trout Food Science Building, Michigan State University
East Lansing, MI 48823
phone: 517-355-8474 x119   fax: 517-353-8963

FIRST ANNOUNCEMENT AND CALL FOR PAPERS

INVERSE PROBLEMS, DESIGN AND OPTIMIZATION SYMPOSIUM

IPDO - 2010

August 25-27, 2010

João Pessoa, Brazil

http://ipdo2010.ipdos.org/

IPDO Symposium's main objectives are to bring the three communities of
researchers (inverse problems, design theory and optimization experts)
together in a unique international forum that provides an excellent
basis for cross-fertilization of ideas, as well as for the creation of
new synergistic approaches and methodologies. Successful previous
versions of the IPDO Symposium were held in Rio de Janeiro (2004) and
in Miami Beach (2007).

The IPDO-2010 Symposium will be held in João Pessoa, Brazil, the
easternmost city in the Americas. For the symposium participants, the
airport of entry in Brazil shall be the International Airport of
Recife, which is served by major airline carriers, with everyday
flights from cities in North America and Europe. Contributions dealing
with practical applications are encouraged, such as in nanotechnology,
petrochemistry, aeronautics, astronautics, bio-medicine, transport and
sensing of pollutants, materials processing, remote sensing,

non-destructive evaluation, material property determination, acceleration of optimization procedures, etc.

SUBMISSION OF CONTRIBUTED PAPERS

Authors should send a one-page abstract in pdf (Portable Document Format) to ipdo2010@gmail.com as an attachment to their e-mail message by December 31, 2009. Authors may also consider their papers for further review and possible publication in the journal Inverse Problems in Science and Engineering

CHAIR

Prof. Zaqueu E. da Silva
Federal University of Paraiba, UFPB
zaqueu@les.ufpb.br

CO-CHAIRS

Prof. George S. Dulikravich
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Prof. Helcio R. B. Orlande
Federal University of Rio de Janeiro, UFRJ
helcio@mecanica.ufrj.br

SPONSORS AND PROMOTERS

ISIPSE (International Society for Inverse Problems in Science and Engineering), ABCM (Brazilian Society of Mechanical Engineering and Sciences), SBMAC (Brazilian Society of Applied and Computational Mathematics), UFPB (Federal University of Paraiba), FIU (Florida International University), UFRJ (Federal University of Rio de Janeiro), NSF, CNPq, CAPES, and Taylor & Francis Publishers.

Subject: INVERSE PROBLEMS MINI-SYMPOSIA IN CONFERENCES OF THE ECCOMAS
From: "victoria@mecanica.ufrj.br" <victoria@mecanica.ufrj.br>
Date: Mon, 30 Nov 2009 10:15:49 -0500

V EUROPEAN CONFERENCE ON COMPUTATIONAL FLUID DYNAMICS
Lisbon, June 14-17, 2010
Mini-symposium 5 - INVERSE TECHNIQUES IN CFD
Organized by Ryszard A. Bialecki and Helcio Orlande
Deadline for abstracts: November 30, 2009
http://www.eccomas-cfd2010.org/

IV EUROPEAN CONFERENCE ON COMPUTATIONAL MECHANICS
Paris, May 16-21, 2010
Mini-symposium 51 - INVERSE METHODS FOR PARAMETER IDENTIFICATION
Organized by Giulio Maier, Helcio Orlande, George Dulikravich and Ryszard A. Bialecki
Deadline for abstracts: December 07, 2009
http://www.eccm2010.org/

Submitted by: Helcio R. B. Orlande
Department of Mechanical Engineering, Politécnica/COPPE
Federal University of Rio de Janeiro, UFRJ
Cid. Universitaria, Cx. Postal: 68503
Rio de Janeiro, RJ, 21941-972, Brazil
Phone:55-21-2562-8405   Fax: 55-21-2562-8383
e-mail: helcio@mecanica.ufrj.br

Subject: OIPE 2010 Call for Papers
From: "oipe@tu-sofia.bg" <oipe@tu-sofia.bg>
Date: Mon, 14 Dec 2009

Dear Colleague,

Please find attached the Call for papers for the XI-th International
Workshop on Optimization and Inverse Problems in Electromagnetism, to
be held in Sofia, Bulgaria, from 14 to 18 September 2010.e

More information is available on the web-site of the Workshop at
oipe.tu-sofia.bg

The on-line registration system will be available in January.

Looking forward to meeting you in Sofia,

Best regards,

Ivan Yatchev,
OIPE 2010 Chairman

Subject: SIAM Conference on Nonlinear Waves and Coherent Structures
(NW10)
From: Kirsten Wilden <Wilden@siam.org>
Date: Mon, 19 Oct 2009

Subject:
Call for Papers - SIAM Conference on Nonlinear Waves and Coherent
Structures (NW10)

Conference Name:
SIAM Conference on Nonlinear Waves and Coherent Structures (NW10)

Location:
Sheraton Society Hill Hotel, Philadelphia, Pennsylvania

Dates:
August 16-19, 2010

The Call for Presentations for this conference is available at:
http://www.siam.org/meetings/nw10/index.php

                        Deadlines

SUBMISSION DEADLINES
February 1, 2010: Minisymposium proposals
March 1, 2010: Abstracts for contributed and minisymposium speakers

TRAVEL FUND APPLICATION DEADLINE

January 16, 2010: SIAM Student Travel Award and Post-doc/Early Career
Travel Award Applications

PRE-REGISTRATION DEADLINE
July 19, 2010

HOTEL RESERVATION DEADLINE
July 19, 2010

For additional information, contact the SIAM Conference Department at
meetings@siam.org.

Subject: SIAM Conference on the Life Sciences (LS10) Call for Papers
From: "Nicole C. Erle" <erle@siam.org>
Date: Mon, 9 Nov 2009CC:

SIAM Conference on the Life Sciences Call for Papers Now Available!

Location: The David L. Lawrence Convention Center

Dates: July 12-15, 2010

The Call for Papers for this conference is now available.
Please visit http://www.siam.org/meetings/ls10/ for more information.

Invited Plenary Speakers
Réka Albert, Pennsylvania State University
Alex L. Bangs, Entelos
Michael Bevers, USDA Forest Service
Daniela Calvetti, Case Western Reserve University
Arup Chakraborty, Massachusetts Institute of Technology
Carson Chow*, National Institutes of Health
Raymond E. Goldstein, University of Cambridge, United Kingdom
Philip Holmes, Princeton University
Alex Mogilner, University of California, Davis

*Joint speaker with the 2010 SIAM Annual Meeting.
SUBMISSION DEADLINES
January 12, 2010: Minisymposium proposals
February 2, 2010: Abstracts for contributed and minisymposium
speakers

Contact SIAM Conference Department at meetings@siam.org with any
questions about the conference.

Nicole Erle, CMP,   Meeting Manager
Society for Industrial and Applied Mathematics (SIAM)
3600 Market St, 6th Floor, Philadelphia, Pa 19104-2688
Telephone: 215-382-9800 x 305   Facsimile: 215-386-7999
jorlett@siam.org   http://www.siam.org/meetings/

Subject: ACM-SIAM - SODA10 - Registration and Schedule
From: Kirsten Wilden <Wilden@siam.org>
Date: Wed, 28 Oct 2009

Subject:
ACM-SIAM Symposium on Discrete Algorithms (SODA10)
  Registration and Schedule Are Now Available!

Conference Name:
ACM-SIAM Symposium on Discrete Algorithms (SODA10)

Conference Dates:
January 17-19, 2010

Location:
Hyatt Regency Austin, Austin, Texas

Invited Speakers:
Emmanuel Candes, Stanford University
Cynthia Dwork, Microsoft Research
Noam Nisan, Hebrew University, Israel

Registration and schedule are now posted at
http://www.siam.org/meetings/da10/

For additional information, contact the SIAM Conference Department at
meetings@siam.org.

Subject: CNS*2010 Call for Abstracts
From: Jonathan Rubin <jonrubin@pitt.edu>
Date: Thu, 12 Nov 2009 17:35:15 -0500

CNS*2010 Nineteenth Annual International Computational Neuroscience
Conference

July 24 - July 30, 2010
San Antonio, Texas, USA
http://www.cnsorg.org

FIRST CALL FOR ABSTRACTS - CNS*2010
SUBMISSION DEADLINE: February 14, 2010 (11 PM Pacific Time, USA)
ABSTRACT SUBMISSION OPEN: January 18, 2010
ABSTRACT SUBMISSION WEBSITE:
http://www.cnsorg.org/2010/submission.shtml

EARLY MEETING REGISTRATION OPEN: January 15, 2010
(http://www.cnsorg.org or https://www.regonline.com/CNS2010)

CNS*2010 will be held in San Antonio, Texas, USA July 24-30th, 2010.
The meeting will kick off with a day of tutorials and an evening
welcome reception on July 24th. The main meeting of CNS*2010 will
take place from Sunday July 25th-Wednesday July 28th, including a
special Symposium, "Twenty years of computational success", on the
afternoons of July 26th-27th. These events will be followed by two
days of workshops on July 29-30th (Thursday-Friday).

The main meeting will be held in the historic Sheraton Gunter Hotel in
central San Antonio, one block from San Antonio's Famous River Walk.
San Antonio is home to several universities including the University
of Texas Health Science Center - San Antonio and the University of
Texas San Antonio, which are both sponsoring CNS*2010. As is
traditional, the CNS banquet will be an interesting and culturally
themed event, hosted at Sundance Ranch on July 28th.

Submissions can include experimental, model-based, as well as more

abstract theoretical approaches to understanding neurobiological computation. We especially encourage research that mixes experimental and theoretical studies. We also accept papers that describe new technical approaches to theoretical and experimental issues in computational neuroscience or relevant software packages.

INVITED SPEAKERS:
Miguel Nicolelis, Duke University, USA, Frontiers of Computational Neuroscience Lecturer

Vivian Mushahwar, University of Alberta, Canada

Jonathan Wolpaw, Wadsworth Center and SUNY, USA

ABSTRACT SUBMISSION:
Submissions to the meeting will take the form of a formatted abstract. Submission instructions and submission website are at http://www.cnsorg.org/2010/submission.shtml.

Authors wanting an oral presentation are required to also submit a 1-3-page summary (for the OCNS reviewers only) describing the nature, scope and main results of the work in more detail. The summaries will be reviewed to construct the oral program. All submissions will be acknowledged by e-mail.

THE REVIEW PROCESS:
Submissions will be judged and accepted for the meeting based on clarity, substance and appropriateness for the meeting. It is particularly important that the biological relevance of the research be made clear. OCNS strongly believes in the open exchange of ideas and rejections are usually based on absence of biological relevance (e.g., pure machine learning). We will notify authors of abstract acceptance by April 16, 2010.

Submissions to be considered for oral presentation will be reviewed by two independent referees and results of the review process will be used to construct the oral program. In addition to perceived quality and significance, the novelty of the research and the diversity and coherence of the overall program will be considerations for selection as an oral presentation. We particularly encourage women and underrepresented minorities to apply for an oral presentation. To ensure diversity, those who have given talks in the recent past will not be selected and multiple oral presentations from the same lab will be discouraged. Most oral presentations will be 20 minutes in length, but a few papers will be selected for longer "featured oral" presentations.

All accepted papers not selected for oral talks may be presented during the poster sessions. Authors will be notified of the presentation format of their papers by the end of April.

OPEN ACCESS, CITABLE ABSTRACT PUBLICATION:
The formatted abstracts will again be published as a Supplement to the online journal BMC Neuroscience. The supplement is citable, indexed by PubMed, and open access.

At least one author must register for CNS*2010 by the early registration deadline of May 15, 2010 for the abstract to be published and included in the program book. Last year's abstracts are available

at the URLs:
--http://www.cnsorg.org/meetings/archives/CNS2009.shtml
--http://www.biomedcentral.com/1471-2202/10?issue=S.

AWARDS:
Limited number of travel grant awards, based on abstract review, will
be available to students. See instructions for requesting travel
awards at www.cnsorg.org. Recipients of travel grants will be
notified by May 5, 2010.

Student posters presented at CNS*2010 will also be judged for cash
prizes awarded at the meeting.

Please check www.cnsorg.org periodically for announcement of
additional categories of awards for postdoctoral fellows.

ORGANIZING COMMITTEE:
The CNS*2010 meeting is organized by the Organization for
Computational Neurosciences, Inc.
President: Ranu Jung (Arizona State U, USA)
Program chair: Don H. Johnson (Rice U, USA)
Local organizers: James Bower, Charles Wilson, and Todd Troyer (U.
Texas, San Antonio, USA)
Program Committee:
Victoria Booth (U Michigan, USA)
Hide Cateau (RIKEN, Japan)
Gennady Cymbalyuk (Georgia State U, USA)
Andrew Davison (UNIC, France)
Jean-Marc Fellous (U Arizona, USA; Publication Chair)
Boris Gutkin, (ENS, France)
Jeanette Hellgren-Kotaleski (Royal Institute of Technology &
Karolinska Institute, Sweden)
Simon Schultz (Imperial College, UK)
Harel Shouval (U Texas Medical School, USA)
Volker Steuber (U Hertfordshire, UK)
Miriam Zacksenhouse (Technion, Israel)

OCNS - Organization for Computational Neurosciences, Inc.
http://www.cnsorg.org

Subject: Second call for MTNS 2010
From: MTNS 2010 <mtns2010@conferences.hu>
Date: Wed, 18 Nov 2009

19th International Symposium on
Mathematical Theory of Networks and Systems
MTNS 2010

Budapest, Hungary
5-9 July 2010
www.conferences.hu/mtns2010

MTNS 2010 is a prime conference in the general area of mathematical
system theory. The symposium is interdisciplinary and attracts
mathematicians, engineers and researchers working in any aspect of
system theory and its applications.

The Symposium is hosted by the Eötvös Loránd University (ELTE) and MTA
SZTAKI (Computer and Automation Research Institute, Hungarian

Academy of Sciences).

Proposals for contributed papers, invited sessions, mini-courses are welcome.   Please, check the conference website

www.conferences.hu/mtns2010

regarding instructions for SUBMISSIONS in all categories.

The Symposium will cover 12 main areas:

Biological Systems
Communication Systems
Computing
Control and Systems Theory
Cooperative Systems
Economics and Systems Theory
Hybrid Systems
Mechanical Systems
Networked Control
Signal Processing
Stochastic Systems
Systems Inspired Mathematics

For details of specific themes listed under these areas please visit the website.

Sincerely,

György Michaletzky
General Chair

László Gerencsér
IPC Chair

Subject: Positions for Ph.D. Students in Inverse Problems Group
From: Arto Voutilainen <arto.voutilainen@uef.fi>
Date: Wed, 25 Nov 2009 05:41:49 -0500

DOCTORAL STUDENT POSITIONS IN SCIENTIFIC COMPUTING
University of Eastern Finland
Department of Physics and Mathematics (Kuopio campus)

The University of Joensuu and the University of Kuopio will merge to constitute the University of Eastern Finland, which begins its operations on 1 January 2010. The University of Eastern Finland seeks to be an internationally recognised research and teaching university, which is among the top three most significant universities in Finland and among the leading 200 universities in the world.

The inverse problems group (IPG) at the Department of Physics and Mathematics of the new university (Kuopio campus) is affiliated with the Center of Excellence in Inverse Problems Research (Academy of Finland). The IPG is led by Prof. Jari P. Kaipio, and it consists currently of 10 senior and postdoc researchers and 8 PhD students. The group will hire 3- 5 new doctoral students in 2010. All PhD projects are related to scientific computing, either to the stable forward, or the unstable inverse problems. With all projects, part of the work is to be carried out while visiting one or several of the international

collaborators. Furthermore, with most projects, the starting times are
negotiable, and the style and contribution can be adjusted somewhat to
match the students' strengths.

We invite prospective candidates (persons with a relevant MSc degree
or students graduating in the near future) to apply for one or several
of the following projects
  1. Stochastic boundary models for inverse problems induced by PDEs
  2. Computational methods for thermal tomography
  3. Development of advanced modelling for optical imaging of the brain
  4. Electrical capacitance tomography imaging of concrete
  5. Optimal control in geophysical tomographic problems
  6. Computational methods for full-wave inversion

The applicants should send the following documents as pdf attachments
to Dr. Arto Voutilainen (Arto.Voutilainen@uef.fi) by January 15, 2010:
  - Cover letter indicating which project(s) are addressed
  - Short CV
  - Scanned copies of relevant diplomas and transcripts of studies. The
    diplomas and transcripts should be in English or Finnish and the
    grading system should be described
  - Names and contact information of two references

For more information, see
http://physics.uku.fi/research/IP/Announcement2009.pdf

All enquiries related to the PhD projects: Arto.Voutilainen@uef.fi

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Subject: Positions for Tomographic Reconstruction Scientists
From: Yoram Bresler <bresler@instarecon.com>
Date: Wed, 9 Dec 2009

Tomographic Reconstruction Scientist/project leader Positions

InstaRecon, Inc, has two full-time positions for imaging scientists,
available immediately.

About InstaRecon --------------------
Located in the University of Illinois Research Park, InstaRecon
(www.instarecon.com) is a high-tech start-up spin-off from the
University of Illinois. We are a developer and supplier of
revolutionary ultra-fast image formation solutions for computed
tomography (CT) scanners. InstaRecon's technology is unique, in that
it provides a 10x- 100x algorithmic speedup for tomographic
reconstruction in all geometries. Our goal is to create the fastest
(by far!) CT reconstruction engines on earth, and bring them to
market.

You will be involved in all phases of R&D, from fundamental algorithm
research and proof of concept, through product definition and
architecture design, to product launch.

Tomographic Reconstruction Scientist Position

You will be in charge of the research and development of novel
advanced algorithms for CT and leading their efficient implementations
by software engineers. Your responsibilities will require strong
theoretical background, creativity, engineering judgment, and good
communication and interpersonal skills.

*Required Skills: PhD *in* *Electrical Engineering or computer
engineering, or computational science. Exceptionally strong skills in
signal and image processing, and numerical algorithms. Experience in
the development of algorithms for image reconstruction or image
processing. Experience with reconstruction algorithms for a computed
imaging modality (e.g., CT, MRI, PET, SPECT, SAR) desirable. Strong
computational skills would be an advantage.

Tomographic Reconstruction Project Leader

You will be in charge of leading the research and development of novel
advanced algorithms for CT and their efficient implementations. Your
responsibilities will require a strong technical background,
creativity, engineering judgment, and effective leadership skills.

*Required Skills **PhD *in* *Electrical Engineering/Computational
Science/Physics/ or related field. 4 or more years experience in the
development of algorithms for image reconstruction or image
processing, preferably for a biomedical computed imaging modality
(e.g., CT, MRI, PET, SPECT). Experience in leading an R&D project
team Broad systems perspective with understanding of the interplay of
algorithms, software engineering, and computer
architectures. Excellent written and oral communications and
interpersonal skills. Prior experience in bringing a product to market
desirable.

* Both positions offer a competitive compensation package.
* Candidates must be in the United States, and eligible for employment
in the US.

To learn more about the positions, please email a copy of your resume
with a quick note about yourself to Yoram Bresler, President.
  bresler@instarecon.com <mailto:bresler@instarecon.com>,
with subject line: Tomographic Reconstruction Positions.

Subject: Special Issue of Applicable Analysis devoted to Inverse
Problems
From: Robert Gilbert <gilbert@math.udel.edu>
Date: Sat, 3 Oct 2009

Applicable Analysis is striving to become a leading journal publishing
papers in the field of Inverse Problems. Our recent special issues
devoted to Inverse Problems were quite successful, for instance see
volume 88, issue 5, 2009 and volume 87, issues 10 and 11 (Free
access!).

This time we announce a special issue on Inverse Problems dedicated to
the 60th birthday (2010) of an outstanding researcher in this field,
whom many people know, Professor Michael V. Klibanov. Michael is also
an Associate Editor of our journal. Papers describing mathematical
tools and subsequent numerical methods in all kinds of Inverse
Problems are welcomed. If the number of contributions will be large (as
we hope), we would be willing to have several issues on this
topic.

The submission deadline is June 1, 2010. Submission can be carried out
via   http://mc.manuscriptcentral.com/gapa

Best regards,

Robert Gilbert
Editor in Chief

Subject: Inverse Problems, volume 25, issue 12, December 2009
From: Emma Avery <Emma.Avery@iop.org>
Date: Mon, 4 Dec 2009

Inverse Problems   December 2009   Volume 25, Issue 12
                         Table of Contents

25TH YEAR SPECIAL ISSUE OF REVIEWS

EDITORIAL

Introduction to the 25th Anniversary Issue of Inverse Problems
W W Symes

TOPICAL REVIEWS

Individual articles are free for 30 days following their publication
on the web. This issue is available at:
http://www.iop.org/EJ/toc/0266-5611/25/12

Submitted by: Emma Avery, Senior Production Editor, Inverse Problems
E-mail: Emma.Avery@iop.org

PAPERS

beam from final overdetermination   Alemdar Hasanov

Individual articles are free for 30 days following their publication on the web. This issue is available at:
http://www.iop.org/EJ/toc/0266-5611/25/11

Subject: TOC, ETNA, vol. 31
From: Lothar Reichel <reichel@math.kent.edu>
Date: Mon, 2 Nov 2009

Electronic Transactions on Numerical Analysis 2008   Vol. 31
                    Table of Contents

This is a special volume with selected papers from the conference Computational Methods with Applications held in Harrachov, Check Republic, in August of 2007.

Special volume editors: O. Ernst, A. Greenbaum, M. H. Gutknecht, R. Nabben, and Z. Strakos.

On the modeling of entropy producing processes
K. R. Rajagopal

A technique for computing minors of binary Hadamard matrices and
application to the growth problem   C. Kravvaritis and M. Mitrouli

A robust and efficient parallel SVD solver based on restarted Lanczos
bidiagonalization   V. Hernandez, J. E. Roman, and A. Tomas

Enhancement of Krylov subspace spectral methods by block Lanczos
iteration   J. V. Lambers

Mathematical properties of flows of incompressible power-law-like
fluids that are described by implicit constitutive relations
J. Malek

On a weighted quasi-residual minimization strategy for solving complex
symmetric shifted linear systems
T. Sogabe, T. Hoshi, S.-L. Zhang, and T. Fujiwara

Structured low rank approximations of the Sylvester resultant matrix
for approximate GCDs of Bernstein basis polynomials
J. R. Winkler and J. D. Allan

Adaptive constraint reduction for training support vector machines
J. H. Jung, D. P. O'Leary, and A. L. Tits

Approximation of the scattering amplitude and linear systems
G. H. Golub, M. Stoll, and A. Wathen

Noise propagation in regularizing iterations for image deblurring
P. C. Hansen and T. K. Jensen

Some remarks on the restarted and augmented GMRES method
Jan Zitko

Schwarz methods over the course of time   M. J. Gander

Cross-Gramian based model reduction for data-sparse systems
U. Baur and P. Benner

Decompositional analysis of Kronecker structured Markov chains
Y. Bao, I. N. Bozkurt, T. Dayar, X. Sun, and K. S. Trivedi

A counterexample for characterizing an invariant subspace of a matrix
H. Schwetlick and K. Schreiber

Structured polynomial eigenproblems related to time-delay systems
H. Fassbender, D. S. Mackey, N. Mackey, and C. Schroder

The RCWA method - A case study with open questions and perspectives of
algebraic computations   J. J. Hench and Z. Strakos

Algorithms for the matrix sector function
B. Laszkiewicz and K. Zietak

On the equivalence of primal and dual substructuring preconditioners
B. Sousedik and J. Mandel

On a multilevel Krylov method for the Helmholtz equation preconditioned

by shifted Laplacian   Y. A. Erlangga and R. Nabben

Electronic Transactions on Numerical Analysis 2008 Vol. 33
Table of Contents

This is a special volume dedicated to Gerard Meurant with selected
papers from the conference Matrix Analysis and Applications held in
Luminy, France, in October of 2007.

Special volume editors: B. Beckermann, K. Jbilou, L. Reichel,
Y. Saad, M. Sadkane, and A. Salam

ETNA papers are presently published in:

ETNA volume 35, the regular volume for 2009

ETNA volume 36, A special volume dedicated to Richard S. Varga on the occasion of his 80th birthday

Submitted by: Lothar ReichelH. Fassbender, D. S. Mackey, N. Mackey, and C. Schroder

----
Subject: Nonlinear Analysis: Modelling and Control
From: Romas Baronas <romas.baronas@mif.vu.lt>
Date: Fri, 13 Nov 2009

Nonlinear Analysis: Modelling and Control, 2009 Vol. 14, No. 4
           Table of Contents

Further Comparisons of Finite Difference Schemes for Computational Modelling of Biosensors
D. Britz, R. Baronas, E. Gaidamauskaite, F. Ivanauskas

Stability and Hopf-Bifurcation Analysis of Delayed BAM Neural Network under Dynamic Thresholds   P.D. Gupta, N.C. Majee, A.B. Roy

Global Existence of Periodic Solutions in a Delayed Kaldor-Kalecki Model   A. Kaddar, H. Talibi Alaoui

Estimation of Some Proportion in a Clustered Population
D. Krapavickaite

Transient Laminar MHD Free Convective Flow past a Vertical Cone with Non-Uniform Surface Heat Flux   Bapuji Pullepu, A.J. Chamkha

Mathematical Modeling of a Bioluminescent E. Coli Based Biosensor
A. Rabner, E. Martinez, R. Pedhazur, T. Elad, S. Belkin, Y. Shacham

Effect of the Presence of a Heat Conducting Horizontal Square Block on Mixed Convection inside a Vented Square Cavity
Md.M. Rahman, M.A. Alim, S. Saha, M.K. Chowdhury

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

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

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