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Today's Editor:

Patricia K. Lamm, Michigan State University
Cara D. Brooks, Michigan State University

Today's Topics:

Conference: Applied Inverse Problems 2011 (Update)
Special Session: Inverse Analysis and Optimization at ASME-IMECE
Special Session: Inverse and Ill-Posed problems at ISAAC 2011
Symposium: Inverse Problems in Science and Engineering at ASME CIE
Conference: Image and Signal Processing, BioMedical Engineering
Postdoctoral and PhD Student Positions: Inverse Problems
Postdoctoral Position: Identification in Mathematical Models
Table of Contents: Electronic Transactions on Numerical Analysis
Table of Contents: Journal of Applied Functional Analysis
Table of Contents: Journal of Concrete and Applicable Analysis

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

Subject: AIP-2011 update
From: William Rundell <rundell@math.tamu.edu>
Date: Fri, 21 Jan 2011

New information about AIP 2011 is available from the website:
<http://aipc.tamu.edu>

1. There is now a registration page (see the sidebar) and we encourage you to fill this out as soon as possible.
 - a) This is particularly important if you require a letter from the conference in order to obtain a visa.
 - b) We will provide a limited pick-up service at Houston airport (IAH) the day before the meeting - the registration page has information here.
 - c) NOTE: due to the generosity of our sponsors, there is NO registration fee

2. We anticipate some funding being available for junior participants (graduate students and postdocs). For graduate students this is restricted to those enrolled in a US doctoral program (but no nationality restrictions), but we welcome applications from all postdocs. We particularly solicit applications from women and minorities.

The application form is through the registration page.
Deadline for applications is March 10.

3. A complete list of minisymposia is now available
<http://aipc.tamu.edu/minisym/index2.html>
and scheduling for these will be available shortly.

4. The deadline for contributed talks is approaching:
see, <http://aipc.tamu.edu/papers/>

Subject: ASME IMECE 2011: Inverse Problems & Optimization in Heat Transfer
From: Kyle Daun <kjdaun@uwaterloo.ca>
Date: Wed, 12 Jan 2011

Dear Inverse Community Colleagues,

Keith Woodbury and I are co-chairing a session on Inverse Analysis and Optimization in Heat Transfer at the 2011 ASME-IMECE, in Denver from Nov 11-17. We would be delighted if you would consider submitting a paper to the session, and grateful if you could disseminate the call-for-papers below to other colleagues who may be interested.

Best regards,

Kyle Daun

Kyle J. Daun, Ph. D., P. Eng.
Assistant Professor
Department of Mechanical and Mechatronics Engineering
University of Waterloo
www.kjdaun.uwaterloo.ca

Call for Papers: Inverse Problems and Optimization in Heat Transfer

2011 ASME International Mechanical Engineering

Congress and Exposition

November 11-17, 2011

Denver, Colorado

The 2011 ASME IMECE is a unique opportunity to expand international cooperation, understanding, and to promote multidisciplinary research in heat transfer. The ASME Heat Transfer Division K-6 and K-20 committees invite authors to participate in the topical area of Inverse Problems and Optimization in Heat Transfer.

Papers are solicited from all areas of inverse problems in heat transfer, with a focus on inverse and optimal design of heat transfer

systems and inverse analysis of experimental data. Topics of interest include:

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

Submit your 400-word text-only abstract to <http://www.asmeconferences.org/Congress2011> under Track 2 (Energy Systems Analysis, Thermodynamics, and Sustainability) and Topic 2 (Thermal Transport in Energy Systems.) Please specify "Inverse Problems and Optimization" in the abstract.

Publication Schedule

Abstract Deadline: February 28th

First Draft: March 28th

Final Draft: May 24th

We would also be grateful if you could print and prominently post the graphic call for papers located at <http://www.kjdaun.uwaterloo.ca> so other researchers may be made aware of this opportunity to meet and collaborate.

Subject: ISAAC 2011, session on inverse problems
From: Professor Yagola <yagola@physics.msu.ru>
Date: Sun, 16 Jan 2011

Dear Colleagues,

Below please find at
<http://www.isaac2011.org/docs/announcement.rtf>
the first announcement of the 8th ISAAC Congress.

It will be organised by Peoples' Friendship University of Russia, Division of Mathematics of the Russian Academy of Sciences, Steklov Institute of Mathematics, and Moscow State University and will take place at Peoples' Friendship University of Russia, Moscow, Russia, through 22-27 August 2011.

The website of the congress can be found at <http://isaac2011.org>

The web site of ISAAC is <http://mathisaac.org/>

Session V.1 is devoted to inverse and ill-posed problems.

Submitted by: Anatoly Yagola, Moscow Lomonosov State University

Subject: ASME 2011 Symposium on Inverse Problems in Science & Engineering
From: IPDO mail <ipdo@dmi.uns.ac.rs>
Date: Sat, 22 Jan 2011

CALL FOR PAPERS

CIE-5 AMS: 2011 ASME Computers and Information Engineering Conference
Symposium on Inverse Problems in Science and Engineering
<https://www.asmeconferences.org/IDETC2011/index.cfm>

Hyatt Regency Washington on Capitol Hill
Washington, DC, USA
August 28-31, 2011

When it is possible to determine governing equation(s), shape(s) and size(s) of the domain(s), boundary and initial conditions, material properties of the media contained in the field, and internal sources and external forces or inputs, then the analysis determining the unknown field is considered mathematically well-posed and solvable.

If any of these pieces of information is unknown or unavailable, then the field problem becomes incompletely defined (ill-posed) and is of an indirect (or inverse) type.

The inverse problems can therefore be classified as the determination of unknown shapes, boundary/initial values, sources and forces, material properties, or governing equation(s). If sufficient amount and type of additional information is provided, the inverse problems can become sufficiently specified so that with the use of appropriate algorithms, they can be solved.

This symposium will serve as a forum to present the results of the latest research and product/tool developments, and to highlight related activities from around the world. Topics for the papers to be submitted for presentation at this meeting include, but are not restricted to:

- * Shape design: determination of shapes, sizes and locations of (multiply connected) domains (shape identification in acoustics, aerodynamics, electromagnetics, elasticity, plasticity, etc; detection of voids and cracks).
- * Material properties and constitutive responses: determination of physical properties of media.
- * Boundary values/initial values: identification of the proper boundary conditions and/or initial conditions (tomographic problems involving X-rays, ultrasonics, optics, thermal sources etc; determination of thermal, stress/strain, electromagnetic, fluid flow, etc. boundary conditions on inaccessible boundaries; determination of initial chemical composition, etc.).
- * Forces and sources: determination of the unknown external forces

or inputs acting on a domain (structural dynamic modification and reconstruction) and internal concentrated and distributed sources/sinks (sources of heat, noise, electromagnetic radiation, etc.).

* Governing equations: inference of analytic forms of partial and/or integral equations governing the variation of measured field quantities; parameter identification methods.

Papers will be judged based on their scientific quality of innovation and rigor, as well as their application value. Quality papers will be referred to the ASME Journal of Computing and Information Science In Engineering. For more information contact the topic area organizers:

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URL: <http://cms.nrl.navy.mil>

Submit your abstract and draft paper as soft copy in electronic format at the following website:
<https://www.asmeconferences.org/IDETC2011/Author/NewAbstract.cfm>

Please observe the following firm deadlines:

* Abstract February 11, 2011

* Draft Paper February 18, 2011

Subject: BMEI'11-CISP'11 Submission Deadline 15 April, Shanghai, China
From: Bing Li <CISP-BMEI-cfp@dhu.edu.cn>
Date: Sun, 16 Jan 2011

Dear Colleague,

Topics of the BMEI 2011 Special Track on Informatics include (but are not limited to): Communications and Networking, Software Engineering, Data Engineering, Intelligent Computing, Information Security, Automation and Control, etc..

We cordially invite you to submit a paper to the upcoming the 4th International Conference on BioMedical Engineering and Informatics (BMEI 2011) and 4th International Congress on Image and Signal Processing (CISP 2011), to be jointly held from 15-17 October 2011, in Shanghai, China.

Shanghai is the largest city in China, with famous historical and cultural heritage. Shanghai is the largest city in China, with famous historical and cultural heritage. Attractions include Yuyuan Garden ("Happy Garden" built in Ming Dynasty), Shanghai Museum with 120,000 pieces of rare relics, Shanghai World Financial Center, Jade Buddha Temple (Song Dynasty), Oriental Pearl TV Tower, Zhujiajiao Water Town, and Expo 2010 site.

All papers in conference proceedings will be indexed by both EI Compendex and ISTP, as well as included in the IEEE Xplore (IEEE Conference Record Number for CISP'11: 18205; IEEE Conference Record Number for BMEI'11: 18206. CISP-BMEI 2008 and 2009 papers have already been indexed in EI Compendex). Substantially extended versions of best papers will be considered for publication in a CISP'11-BMEI'11 special issue of the Computers and Electrical Engineering journal (SCI-indexed).

BMEI-CISP is a premier international forum for scientists and researchers to present the state of the art of multimedia, signal processing, biomedical engineering and informatics. The previous BMEI-CISP each attracted over 3000 submissions from all over the world, with acceptance rate around 50%. The registration fee of US\$390 includes proceedings, lunches, dinners, banquet, coffee breaks, and all technical sessions. BMEI'11-CISP'11 is technically co-sponsored by the IEEE Engineering in Medicine and Biology Society.

To promote international participation of researchers from outside the country/region where the conference is held (i.e., China's mainland), researchers outside of China's mainland are encouraged to propose invited sessions. The first author of each paper in an invited session must not be affiliated with an organization in China's mainland. All papers in the invited sessions can be marked as "Invited Paper". The organizer(s) for each invited session with at least 6 registered

papers will (jointly) enjoy an honorarium of US*D 400. Invited session organizers will solicit submissions, conduct reviews and recommend accept/reject decisions on the submitted papers. Invited session organizers will be able to set their own submission and review schedules, as long as a list of recommended papers is determined by 30 May 2011. Each invited session proposal should include: (1) the name, bio, and contact information of each organizer of the invited session; (2) the title and a short synopsis of the invited session. Please send your proposal to CISP-BMEI@dhu.edu.cn

For more information, visit the conference web page:

<http://cisp-bmei.dhu.edu.cn>

If you have any questions after visiting the conference web page, please email the secretariat at CISP-BMEI@dhu.edu.cn

Join us at this major event in exciting Shanghai !!!

Organizing Committee
CISP-BMEI@dhu.edu.cn

Subject: Postdoctoral and PhD student positions in inverse problems
From: Mikko Salo <msa@rni.helsinki.fi>
Date: Mon, 10 Jan 2011

Postdoctoral and PhD student positions in inverse problems

Inverse Problems Group
Department of Mathematics and Statistics
University of Helsinki

Date of announcement: January 10, 2011
Deadline for applications: February 6, 2011
Number of positions: 4-8, of which at least two (2) are postdoctoral positions and at least two (2) are PhD student positions

Supervisors: Prof. Lassi Paivarinta, Prof. Matti Lassas, Dr. Mikko Salo

The Inverse Problems Group at the Department of Mathematics and Statistics, University of Helsinki, will hire new PhD students and postdoctoral researchers. We invite prospective candidates to apply for these positions, which will involve research in one or more of the following areas:

1. Inverse problems and spectral theory for partial differential equations
2. Geometric inverse problems
3. Stochastic inverse problems
4. Regularization methods in inverse problems, in particular sparse reconstructions

We plan to fill in 4-8 positions, of which at least two (2) are at the

postdoctoral level and at least two (2) at the PhD student level. The deadline for applications is February 6, 2011. For information on how to apply, please see the webpage

<http://wiki.helsinki.fi/display/inverseproblems/Call+for+applications+2011>

Subject: postdoc position
From: Thorsten Hohage <hohage@math.uni-goettingen.de>
Date: Sat, 22 Jan 2011

Open postdoctoral position

In the Research Training Group RTG 1023 "Identification in Mathematical Models: Synergy of Stochastic and Numerical Methods" at the University of Goettingen, a two-year postdoctoral research position will be available from April 1, 2011.

The research program of the RTG 1023 includes statistical inverse problems in imaging and in biometrics, kernel based and robust identification methods and identification problems in partial differential equations. The topics cover a broad range connecting theoretical mathematical problems, application relevant problems from numerical analysis and statistics, and interdisciplinary projects in collaboration with researchers from other sciences. Further information on the research and teaching program and, in particular, on the participating research groups can be found on the RTG 1023 Webpage.

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

Application should be sent before March 10th, 2011, to the spokesman of the program,
Prof. Dr. Thorsten Hohage
Institut fuer Numerische und Angewandte Mathematik
Georg-August-Universitaet Goettingen
Lotzestr. 16-18,
37083 Goettingen. Germany

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

Subject: ETNA, ToC, Vol. 37
From: Lothar Reichel <reichel@math.kent.edu>
Date: Mon, 17 Jan 2011

Electronic Transactions on Numerical Analysis 2010 Volume 37
Table of Contents

Approximate Fekete points for weighted polynomial interpolation
A. Sommariva and M. Vianello

Block approximate inverse preconditioners for sparse nonsymmetric linear systems J. Cerdan, T. Faraj, N. Malla, J. Marin, and J. Mas

Analysis of the finite element method for transmission/mixed boundary value problems on general polygonal domains
H. Li, A. Mazzucato, and V. Nistor

The analytic SVD: On the non-generic points on the path
D. Janovska and V. Janovsky

Convergence rates for regularization with sparsity constraints
R. Ramlau and E. Resmerita

On the approximation of analytic functions by the q -Bernstein polynomials in the case $q > 1$ S. Ostrovska

On weighted lacunary interpolation M. Lenard

An aggregation-based algebraic multigrid method Yvan Notay

Computing $\exp(-tA)b$ with Laguerre polynomials
B. N. Sheehan, Y. Saad, and R. B. Sidje

A gradient recovery operator based on an oblique projection
B. P. Lamichhane

An implicit approximate inverse preconditioner for saddle point problems S. Le Borne and C. Ngufor

New quadrilateral mixed finite elements Y. Hyon and D. Y. Kwak

On a non-stagnation condition for GMRES and application to saddle point matrices V. Simoncini

A weakly over-penalized symmetric interior penalty method for the biharmonic problem S. C. Brenner, T. Gudi, and L.-Y. Sung

Two-level nonlinear elimination based preconditioners for inexact Newton methods with application in shocked duct flow calculation
F.-N. Hwang, H.-L. Lin, and X.-C. Cai

Accumulation of global error in Lie group methods for linear ordinary differential equations B. Orel

A streaming approach for sparse matrix products and its application in Galerkin multigrid methods J. Georgii and R. Westermann

Adaptive reduction-based multigrid for nearly singular and highly disordered physical systems

J. Brannick, A. Frommer, K. Kahl, S. MacLachlan, and L. Zikatanov

A robust spectral method for finding lumpings and meta stable states of non-reversible Markov chains M. N. Jacobi

An analysis of low-rank modifications of preconditioners for saddle point systems C. Greif and M. L. Overton

Semi-convergence and relaxation parameters for a class of SIRT algorithms T. Elfving, T. Nikazad, and P. C. Hansen

Mapping directed networks

J. J. Crofts, E. Estrada, D. J. Higham, and A. Taylor

Benchmarking aggregation AMG for linear systems in CFD simulations of compressible internal flows M. Emans

Coarsening invariance and bucket-sorted independent sets for algebraic multigrid D. M. Alber and L. N. Olson

A spectral method for the eigenvalue problem for elliptic equations K. Atkinson and O. Hansen

Analysis of a non-standard finite element method based on boundary integral operators C. Hofreither, U. Langer, and C. Pechstein

In 2010 also ETNA volume 36, a special volume dedicated to Richard S. Varga, was completed.

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.

Subject: Contents, Journal of Applied Functional Analysis
From: "George A Anastassiou (ganastss)" <ganastss@gmail.com>
Date: Mon, 24 Jan 2011

<http://www.eudoxuspress.com/images/TOC-JAFA-11--VOL-6.pdf>

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

Subject: Contents, Journal of Concrete & Applicable Analysis
From: "George A Anastassiou (ganastss)" <ganastss@gmail.com>
Date: Mon, 24 Jan 2011

<http://www.eudoxuspress.com/images/TOC-VOL-9--2011--JCAAM.pdf>

Submitted by: George A. Anastassiou, Ph.D

Professor of Mathematics, Department of Mathematical Sciences
The University of Memphis, Memphis, TN 38152, USA

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Today's Editor:

Patricia K. Lamm, Michigan State University
Cara D. Brooks, Michigan State University

Today's Topics:

Conference: AIP 2011 Schedule, Posters, and Funding
Conference: Applied Mathematics, Modeling and Computational Science
New Book on Optimal Control for Nonlinear Parabolic Systems
Table of Contents: Inverse Problems
Table of Contents: J. Inverse and Ill-posed Problems
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: AIP 2011 Schedule, Posters, and Funding
From: William Rundell <rundell@math.tamu.edu>
Date: Fri, 25 Feb 2011

The AIP 2011 Schedule is now online; see <http://aipc.tamu.edu>

Please note that there is a poster session available and this has been given a prime time period on the morning of the first day of the conference. We encourage submissions for this event as we hope to make this opportunity a central feature of the meeting.

There is funding available for graduate students and postdocs; see the URL <http://aipc.tamu.edu/registration> for more details. These funds are courtesy of the National Science foundation.

Subject: AMMCS-2011 Conference, Waterloo, Canada, 25-29 July 2011
From: ammcs conference <ammcs2011@wlu.ca>
Date: Thu, 3 Feb 2011 11:20:58 -0500

Subject: AMMCS-2011 Conference, Waterloo, Canada, 25-29 July 2011

The International Conference on Applied Mathematics, Modeling and Computational Science (AMMCS-2011) will take place in Waterloo, Ontario, Canada from July 25 - 29, 2011. It is a satellite meeting of

the ICIAM-2011, coordinated with SIAM and AIMS.

Researchers are invited to submit minisymposia and special sessions proposals (deadline is March 1). Abstract submission to both special and contributed sessions is open (deadline is March 15). Refereed proceedings will be published by AIP and selected papers, presented at the conference, will be invited to special journal issues. Further details are at the conference website: <http://www.wlu.ca/ammcs2011> (contact us at ammcs2011@wlu.ca)

We look forward to welcoming you in Waterloo.

AMMCS-2011 General Chairs
Ilias Kotsireas and Roderick Melnik

Subject: New Book: Optimal Control for Nonlinear Parabolic Distributed
Parameter Systems
From: QUAN-FANG WANG <quanfangwang@yahoo.co.jp>
Date: Tue, 8 Feb 2011

New Book: Optimal Control for Nonlinear Parabolic Distributed
Parameter Systems
Author: Quan-Fang Wang

In this work, we have studied the quadratic cost optimal control problems and their numerical analysis of nonlinear parabolic distributed parameter systems. After established the fundamental existence and uniqueness results, we have developed the nonlinear optimal control theory for the equations having uniform Lipschitz continuous nonlinearity. Then we have applied the theoretical results to practical nonlinear parabolic partial differential equations including reaction-diffusion equations, diffusion Hopfield neural network equations. Furthermore, numerical evidences for these issues have also been solved by using variational method and finite element approach.

- * Hardcover: 108 pages
- * Publisher: LAMBERT Academic Publishing, (Feb. 1, 2011)
- * ISBN: 978-3-8443-0396-4
- * ISBN-10: 3844303960
- * EAN: 9783844303964
- * <https://www.morebooks.de/store/gb/book/optimal-control-for-nonlinear-parabolic-distributed-parameter-systems/isbn/978-3-8443-0396-4>
- * <http://www.amazon.com/Optimal-Nonlinear-Parabolic-Distributed-Parameter/dp/3844303960/>

With best regards,
Quan-Fang Wang
<http://www.mathematicsworld.co.cc/>

Subject: Inverse Problems, volume 27, issue 2, February 2011
From: Emma Avery <Emma.Avery@iop.org> and

Stephanie Kent <Stephanie.Kent@iop.org>
Date: Mon, 31 Jan 2011

Inverse Problems February 2011 Volume 27, Issue 2
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Reconstruction of river bed topography from free surface data using a direct numerical approach in one-dimensional shallow water flow
A F Gessese, M Sellier, E Van Houten and G Smart

Inversion formulas for the broken-ray Radon transform
Lucia Florescu, Vadim A Markel and John C Schotland

Stability results for backward parabolic equations with time-dependent coefficients Dinh Nho H\`ao and Nguyen Van Duc

Detection and imaging in strongly backscattering randomly layered media
R Alonso, L Borcea, G Papanicolaou and C Tsogka

Inverse problems for pseudo-Jacobi matrices: existence and uniqueness results N Bebiano and J da Provid\`encia

Sharp converse results for the regularization error using distance functions Jens Flemming, Bernd Hofmann and Peter Math\`e

Identification of moving pointwise sources in an advection--dispersion--reaction equation
M Andrieu, F Ben Belgacem and A El Badia

Source localization in electromyography using the inverse potential problem Kees van den Doel, Uri M Ascher and Dinesh K Pai

State space regularization in the nonstationary inverse problem for diffuse optical tomography
P Hiltunen, S S\`arkk\`a, I Nissil\`a, A Lajunen and J Lampinen

Tensor completion and low-n-rank tensor recovery via convex optimization
Silvia Gandy, Benjamin Recht and Isao Yamada

Identification of surface impedance of thin dielectric objects from far-field data Noam Zeev

Reconstruction of a function from its spherical (circular) means with the centers lying on the surface of certain polygons and polyhedra
Leonid Kunyansky

Individual articles are free for 30 days following their publication on the web. This issue is available at:
<http://iopscience.iop.org/0266-5611/27/2>

Submitted by Emma Avery, Senior Production Editor

Estimation of the support of a radiating/scattering object by means of supporting cones G Bellizzi and A Capozzoli

Model-based parameter estimation for characterizing wave propagation in a homogeneous medium James S Hall and Jennifer E Michaels

Recovery of sparse signals using OMP and its variants: convergence analysis based on RIP Shisheng Huang and Jubo Zhu

An inverse random source scattering problem in inhomogeneous media Peijun Li

Nonlinear integral equations for shape reconstruction in the inverse interior scattering problem Hai-Hua Qin and Fioralba Cakoni

Local inversion of the sonar transform regularized by the approximate inverse Eric Todd Quinto, Andreas Rieder and Thomas Schuster

On convergence of local averaging regression function estimates for the regularization of inverse problems Barbara Kaltenbacher and Harro Walk

Level-set techniques for facies identification in reservoir modeling Marco A Iglesias and Dennis McLaughlin

Self-adaptive projection methods for the multiple-sets split feasibility problem Jinling Zhao and Qingzhi Yang

Inverse source problem for a fractional diffusion equation Ying Zhang and Xiang Xu

Reflection imaging without low frequencies Frank Natterer

Reconstructing an even damping from a single spectrum Steven J Cox and Mark Embree

The MUSIC algorithm for sparse objects: a compressed sensing analysis Albert C Fannjiang

Deconvolution on the Euclidean motion group $\mathrm{SE}(3)$ Z M Luo, P T Kim, T Y Kim and J Y Koo

Inversion algorithms for the spherical Radon and cosine transform A K Louis, M Riplinger, M Spiess and E Spodarev

Regularization under general noise assumptions Peter Mathé and Ulrich Tautenhahn

Individual articles are free for 30 days following their publication on the web. This issue is available at:

<http://iopscience.iop.org/0266-5611/27/3>

Submitted by Stephanie Kent, Production Editor

Subject: J. Inverse and Ill-posed Problems, Vol. 18, No. 7 (2010)
From: "reference-global@degruyter.com" <reference-global@degruyter.com>
Date: Fri, 25 Feb 2011

J. of Inverse and Ill-posed Problems December 2010 Vol. 18, No. 7
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Inverse problems for quantum kinetic equations
Yu. E. Anikonov and M. V. Neshchadim

An inverse source problem for quasi-static Maxwell's equations
Abdellatif El Badia and Takaaki Nara

A global stability estimate for the Gel'fand-Calderon inverse problem in
two dimensions Roman Novikov and Matteo Santacesaria

A discrete events delay differential system model for transmission of
Vancomycin-resistant enterococcus (VRE) in hospitals
Angela Ortiz, H. Thomas Banks, Carlos Castillo-Chavez, Gerardo
Chowell, and Xiaohong Wang

Seismic impedance inversion using l1-norm regularization and gradient
descent methods Yanfei Wang

The above issue is now available online from Walter de Gruyter at:
<http://www.reference-global.com/toc/jiip/2010/18/7?ai=124&ui=34xi&af=T>

Subject: Contents, J. Computational Analysis and Applications
From: "George A Anastassiou (ganastss)" <ganastss@gmail.com>
Date: Thu, 3 Feb 2011

<http://www.eudoxuspress.com/images/TABLE-OF-CONTENTS-JOCAA-2011-VOLUME-13.pdf>

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

Today's Editors:

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

Today's Topics:

Advanced School: Thermal Measurements & Inverse Techniques
International Congress: Computer Appl. & Computational Science
Special NLAA Issue: Inverse Problems in Science & Industry
Table of Contents: Inverse 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: Advanced School: Thermal Measurements & Inverse Techniques
From: Denis Maillet <Denis.Maillet@ensem.inpl-nancy.fr>
Date: Fri, 25 Mar 2011

Advanced School - Metti 5 - last announcement

Pre-registration is now open at:

<http://www.sft.asso.fr/metti5>

for the 5th Advanced Spring School:

Thermal Measurements & Inverse Techniques, 5th edition

ROSCOFF Biological Station (Brittany, France)

June 13-18, 20

Its main objective is bridging the gap between measurements and models
in heat transfer or in other engineering fields.

Fond regards,

Denis Maillet

for the organizing Committee

Metti 5 - Thermal measurements and inverse techniques

Submitted by: Prof. Denis Maillet

Institut National Polytechnique de Lorraine, Nancy

recherche (research) : LEMTA -Nancy-Universit  , CNRS

2, avenue de la For  t de Haye - 54504 Vandoeuvre cedex - France

Tel: (33) 03 83 59 56 06 (ou 07) Fax: 03 83 59 55 51

e-mail: denis.maillet@ensem.inpl-nancy.fr

Subject: Congress on Computer Applications & Computational Science
From: Jane Lew <cacs@cacs2010.org>
Date: Mon, 7 Mar 2011

The 2011 2nd International Congress on Computer Applications and
Computational Science (CACS 2011)

<http://irast.net/conferences/CACS/2011>

15-17 November 2011, Bali, Indonesia

CACS 2010 aims to bring together researchers and scientists from
academia, industry, and government laboratories to present new results
and identify future research directions in computer applications and
computational science.

All papers published in the CACS 2011 proceedings will be included in
the IEEE Xplore and indexed in both Ei Compendex and ISTP. CACS 2011
has appeared in the IEEE Conferences (Conference Record # 18959, IEEE
Catalog Number: CFP1175N-CDR, ISBN: 978-1-61284-995-9).

Topics of interest include, but are not limited to:

- . Computer Architecture and VLSI
- . Computer Control and Robotics
- . Computers in Education and Learning Technologies
- . Computer Networks and Data Communications
- . Data Mining and Data Engineering
- . Energy and Power Systems
- . Intelligent Systems and Autonomous Agents
- . Internet and Web Systems
- . Scientific Computing and Modeling
- . Signal, Image and Multimedia Processing
- . Software Engineering

Bali is a favorite vacation destination for many nationalities. Bali's
natural attractions include miles of sandy beaches, picturesque rice
terraces, towering active volcanoes over 3,000 meters high, fast
flowing rivers, deep ravines, pristine crater lakes, sacred caves, and
lush tropical forests full of exotic wildlife. The island's rich
cultural heritage is visible everywhere - in over 20,000 temples and

palaces, in many colorful festivals and ceremonies, in drama, music, and dance. Bali is also well-known for its night life. Come to Bali enjoying the beautiful environment and fun here!

Paper Submission Deadline: 15 May 2011

Review Decision Notifications: 15 August 2011

Final Papers and Author Registration Deadline: 9 September 2011

With kind regards,
Jane Lew

Subject: Special Issue in Inverse Problems in Science & Industry
From: Eric <eric.chu@monash.edu>
Date: Thu, 10 Mar 2011

NLAA Special Issue in Inverse Problems in Science and Industry,
In Honour of Biswa Datta
Deadline Extended

Call for Papers:

Special Issue in Inverse Problems in Science and Industry, dedicated to Biswa Datta

We are pleased to announce a special issue of Numerical Linear Algebra with Applications in Inverse Problems in Science and Industry, dedicated to Biswa Datta.

All papers submitted must meet the publication standards of Numerical Linear Algebra with Applications and will be subject to the normal refereeing procedure. In particular, we encourage papers related to Biswa's work areas, including

- inverse problems in science and industry,
- numerical algorithms for control, systems, and signal processing,
- active vibration control,
- model updating,
- numerical linear algebra in applications,

but other papers involving inverse problems and within the scope of the journal are most welcome.

The deadline for submission of papers has been revised to July 31, 2011.

Please submit your papers directly via the online submission system for NLAA (<http://mc.manuscriptcentral.com/nla>), mentioning that the

paper is for a special issue. Please give also the special issue title (Special issue on Inverse Problems dedicated to Biswa Datta). Guidelines regarding paper style, which is not compulsory until a paper is accepted for publication, can be found at

<http://www3.interscience.wiley.com/journal/5957/home/ForAuthors.html>

Guest editors:

Eric King-wah Chu
School of Mathematical Sciences
Monash University
VIC 3800, Australia
eric.chu@monash.edu

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Department of Mathematics
National Taiwan University
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Kent, OH 44242, USA
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The responsible Associate Editor of the special issue is:

Maya Neytcheva
Scientific Computing
Department of Information Technology
Uppsala University
Maya.Neytcheva@it.uu.se

Subject: Inverse Problems, volume 27, issue 4, April 2010
From: Stephanie Kent <Stephanie.Kent@iop.org>
Date: Tue, 29 Mar 2011

Inverse Problems April 2011 Volume 27, Issue 4
Table of Contents

Data analysis tools for uncertainty quantification of inverse problems
L Tenorio, F Andersson, M de Hoop and P Ma

Inverse problems for Bessel-type differential equations on noncompact graphs using spectral data Vjacheslav Yurko

Forward simulation and inverse dipole localization with the lowest order Raviart-Thomas elements for electroencephalography
S Pursiainen, A Sorrentino, C Campi and M Piana

Thermoacoustic tomography arising in brain imaging
Plamen Stefanov and Gunther Uhlmann

Extended-domain-Lavrentiev's regularization for the Cauchy problem
Faker Ben Belgacem, Duc Thang Du and Faten Jelassi

Families of beams with a given buckling spectrum
Ivo Cali`o, Graham M L Gladwell and Antonino Morassi

Reconstructions from backscatter data in electric impedance tomography
Stefanie Hollborn

Fast and high-quality reconstruction in electron tomography based on
an enhanced linear forward model H Kohr and A K Louis

Proximity algorithms for image models: denoising
Charles A Micchelli, Lixin Shen and Yuesheng Xu

Partial elastodynamic cloaking by means of fiber-reinforced composites
P Olsson and David J N Wall

A variational approach to an electromagnetic inverse problem
B M Brown and M Jais

Implicit iteration methods in Hilbert scales under general smoothness
conditions Qian Jin and Ulrich Tautenhahn

Two-component CH system: inverse scattering, peakons and geometry
D D Holm and R I Ivanov

Individual articles are free for 30 days following their publication
on the web. This issue is available at:
<http://iopscience.iop.org/0266-5611/27/4>

Submitted by Stephanie Kent, Production Editor

Subject: Table of Contents, Nonlinear Analysis: Modelling and Control
From: Romas Baronas <romas.baronas@mif.vu.lt>
Date: Tue, 1 Mar 2011

Nonlinear Analysis: Modelling and Control 2011 Volume 16, No 1
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Effects of variable chemical reaction and variable electric
conductivity on free convective heat and mass transfer flow along an
inclined stretching sheet with variable heat and mass fluxes under the
influence of Dufour and Soret effects M.S. Alam, M.U. Ahammad

On hydromagnetic flow due to a rotating disk with radiation effects
S.P. Anjali Devi, R. Uma Devi

On the backward bifurcation of a vaccination model with nonlinear

incidence B. Buonomo, D. Lacitignola.

Taylor-Couette flow of a fractional second grade fluid in an annulus
due to a time-dependent couple

M. Imran, M. Kamran, M. Athar, A.A. Zafar

Global analysis of a deterministic and stochastic nonlinear SIRS
epidemic model A. Lahrouz, L. Omari, D. Kiouach.

On a three-tier ecological food chain model with deterministic and
random harvesting: A mathematical study

B. Mukhopadhyay, R. Bhattacharyya

Analysis of the flow and heat transfer characteristics for MHD free
convection in an enclosure with a heated obstacle

S. Parvin, R. Nasrin

Soret and Dufour effects on mixed convection in a non-Darcy porous
medium saturated with micropolar fluid

D. Srinivasacharya, Ch. RamReddy.

Notion of a virtual derivative S. Parvin, R. Nasrin.

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 -----

Today's Editors:

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

Today's Topics:

Applied Inverse Problems Conference 2011 (Final Announcement)
British Inverse Problems Workshop
Sandpit on Industrial Inverse Problems
Workshop on Inverse Problems in Gothenburg, Sweden
SIAM Conference on Control and Its Applications
Int'l Conf. on Applied Mathematics and Approximation Theory
Position: Full Professor of Applied Mathematics & Modeling
Special Issues: L. P. Euler's Functional Equations & Inequalities
Table of Contents: Inverse Problems
Table of Contents: Journal of Inverse and Ill-Posed Problems

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

Subject: Final announcement: AIP 2011
From: William Rundell <rundell@math.tamu.edu>
Date: Fri, 29 Apr 2011

AIP 2011 May 23 - 27 2011 Pre-conference workshop May 21, 22

For those registered, please note that hotels have released their AIP-held rooms as of May 2, and the declared rate may have changed or rooms may be unavailable. However if you contact the hotels very soon there may still be availability.

Those wishing to be picked up from Houston Airport (IAH) on May 22 must have contacted the conference administration (aipc@math.tamu.edu) indicating this together with flight information by May 6. We should be able to accommodate all requests for flight arrivals mid-afternoon through early evening. We will also be able pick up arrivals into College station (CLL) but prior notice before May 6 is also essential.

There are still available slots for poster sessions. Anyone still wishing to be part of the poster session should indicate this by e-mail before May 13.

For those who have not yet registered they should do so immediately as head counts for the social events and banquet (no charge) will be set on May 6.

Subject: British Inverse Problems Workshop
From: Daniel Lesnic <amt5ld@maths.leeds.ac.uk>
Date: Mon, 4 Apr 2011

A British Inverse Problems Workshop will be held in the afternoon of Tuesday, 7th of June 2011, from 13.30 to 17.00 in the MALL Room of the School of Mathematics at the University of Leeds.

<http://www.amsta.leeds.ac.uk/rvc/BIPW.html>

Programme:

13.30 - 14.30 Steven Sourbron (University of Leeds) -
"Model-free deconvolution in dynamic contrast-enhanced MRI"

14.30 - 15.30 Ian Craddock (University of Bristol) -
"Inverse problems for microwave breast cancer detection"

15.30 - 16.00 Tea/Coffee Break

16.00 - 17.00 Trond Mannseth (University of Bergen, Norway) -
"Multiscale regularization"

Please note that there are no fees to be charged for participating at the workshop. Please just send an email to D.Lesnic@leeds.ac.uk before 27th of May 2011 if you would like to participate in this event.

Submitted by: Daniel Lesnic, Department of Applied Mathematics,
University of Leeds, Leeds LS2 9JT, UK.
e-mail: amt5ld@maths.leeds.ac.uk,
tel: +44-(0)113-3435181, fax: +44-(0)113-3435090.

Subject: Sandpit on Industrial Inverse Problems
From: Daniel Lesnic <amt5ld@maths.leeds.ac.uk>
Date: Mon, 4 Apr 2011

Announcement of the Fifth Knowledge Transfer Workshop/Sandpit on Inverse Problems in Industry, University of Leeds, 6-7 June 2011

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

The programme of talks from industry includes:

Steve GRAHAM (UK National Nuclear Laboratory (NNL)) - "Applied mathematical modelling in the nuclear industry"

Larissa FRADKIN and Victor ZERNOV (Sound Mathematics Ltd.) - "Defect characterisation in ultrasonic non-destructive testing"

Paul CHILDS (Schlumberger Cambridge Research Ltd.) - "Challenges in seismic imaging and inversion"

Amit BHAVE (Computational Modelling Cambridge Ltd.) - "Parameter estimation with uncertainty propagation for applications in the chemical, energy, and automotive industries"

Further details are available at:

<http://www.amsta.leeds.ac.uk/rvc/sandpit.html>

Submitted by: Daniel Lesnic (Organiser), Department of Applied Mathematics, University of Leeds, Leeds LS2 9JT, UK.
e-mail: amt5ld@maths.leeds.ac.uk

Subject: Workshop on Inverse Problems 02.06.2011-03.06.2011 in Gothenburg, Sweden
From: Larisa Beilina <larisa.beilina@chalmers.se>
Date: Wed, 20 Apr 2011

Annual Workshop on Inverse Problems

First annual workshop on Inverse Problems within the Visby Program will be held at 02.06-03.06. 2011 at the Department of Mathematics, Chalmers University of Technology and Gothenburg University, Gothenburg, Sweden.

The workshop will take place at room PASCAL, HÅrnsalsvägen 1, 10.00-17.00.

The subject of the annual workshop is presentation of new analytical developments and new numerical methods for solutions of Inverse Problems. The workshop aims to gather people from the field of applied mathematics to discuss the state-of-the-art and future challenges in solving of Inverse problems for broad range of applications.

Confirmed invited speakers:

- * Anatoliy Bakushinskiy, The Institute for System Analysis of The Russian Academy of Science, Moscow, Russia
- * Roman Novikov, International Institute of Earthquake Prediction Theory and Mathematical Geophysics, Moscow, Russia and CMAP Ecole Polytechnique, France
- * Vladimir G. Romanov, Sobolev Institute of Mathematics, Siberian Division of the Russian Academy of Sciences, Novosibirsk, Russia
- * Anatoliy Yagola, Moscow Lomonosov State University, Department of Mathematics, Russia
- * Gulnara Kuramshina, Moscow Lomonosov State University, Department of Physical Chemistry,

The talks will be given in English. The workshop is sponsored by the Swedish Institute, Visby Program.

Participation in this workshop is free.

Organiser:

Larisa Beilina,

Associate Professor

Department of Mathematical Sciences

Chalmers University of Technology and Gothenburg University,

SE-41296, Gothenburg, Sweden

Registration is made by sending an e-mail to:

larisa@chalmers.se

including name, company/university, department.

More information about workshop can be found at

<https://sites.google.com/site/visby2010/annual-workshop-on-inverse-problems>

Submitted by: Larisa Beilina, Ph.D.

Department of Mathematical Sciences

Chalmers University of Technology and Gothenburg University, SE-41296,

Gothenburg, Sweden

Subject: SIAM Conference on Control and Its Applications (CT11) -

Registration and Program Now Available!

From: Kirsten Wilden <Wilden@siam.org>

Date: Tue, 26 Apr 2011

Subject:

SIAM Conference on Control and Its Applications (CT11) -

Registration and Program Now Available!

Conference Name:

SIAM Conference on Control and Its Applications (CT11)

Location:

Hyatt Regency Baltimore, Baltimore, Maryland, USA

Dates:

July 25-27, 2011

Invited Speakers:

Alain Bensoussan, University of Texas at Dallas, USA

and the Hong Kong Polytechnic University, Hong Kong

Tyrone Duncan, University of Kansas, USA

Birgit Jacob, Universitat Wuppertal, Germany

Yannis Kevrekidis, Princeton University, USA

Walter Willinger, AT&T Labs-Research, USA

Enrique Zuazua, Ikerbasque & Basque Center for Applied Mathematics (BCAM), Basque Country-Spain

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Registration and the conference schedule are now posted at <http://www.siam.org/meetings/ct11/>

PRE-REGISTRATION DEADLINE

June 27, 2011

HOTEL RESERVATION DEADLINE

June 27, 2011

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

Subject: International Conference AMAT 2012

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

Date: Thu, 28 Apr 2011

Please find complete information about the International Conference on 'Applied Mathematics and Approximation Theory 2012', to be held in Ankara, Turkey, May 17-19, 2012.

So for all you need please visit:

<http://amat2012.etu.edu.tr/>

For whatever you need please contact the organizer Professor Oktay Duman at oduman@etu.edu.tr
Please do not contact George Anastassiou.

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

Subject: Full Professor of Applied Mathematics & Modeling

From: "Prof. Heinz W. Engl" <heinz.engl@univie.ac.at>

Date: Thu, 7 Apr 2011 14:19:42 +0200

Job Announcement

As stated in its development plan (<http://www.univie.ac.at/rektorenteam/ug2002/entwicklungsplan.html>) the University of Vienna aims at strengthening its position as a major research-oriented university. Key elements of this strategy include the provision of an attractive range of research-based study programmes, support for furthering the work of junior academic colleagues, and high-calibre professorial appointments.

The Faculty of Mathematics of the University of Vienna announces the position of a

Full Professor of Applied Mathematics and Modeling

(full time, permanent position under private law). The University of Vienna intends to increase the number of women on its faculty, particularly in high-level positions, and therefore specifically invites applications by women. Among equally qualified applicants women will receive preferential consideration.

Successful candidates will have the following qualifications:

- * PhD and post-doctoral experience at a university or other research institution (Austrian or equivalent international academic degree in the relevant field)
- * Outstanding research and publication record, with an excellent reputation as an active member in the international academic community (Habilitation (venia docendi) or equivalent international qualification in the relevant field is desirable)
- * Experience in designing, procuring and directing major research projects, and willingness and ability to assume the responsibility of team leadership
- * Experience in university teaching, and willingness and ability to teach at all curricular levels, to supervise theses, and to further the work of junior academic colleagues

The University of Vienna expects the successful candidate to acquire, within three years, proficiency in German sufficient for teaching in Bachelor programmes and participation in committees.

The University of Vienna offers:

- * Attractive terms and conditions of employment with a negotiable and performance-related salary, associated with a retirement fund
- * A start-up package for the initiation of research projects
- * An attractive and dynamic research location in a city with a high quality of life and in a country with excellent research funding provision
- * Support for relocation to Vienna, where appropriate

Candidates should send an application containing at least the following documents:

- * Academic curriculum vitae
- * Brief description of current research interests and research plans for the immediate future
- * List of publications together with
 - a) specification of five key publications judged by the applicant

to be particularly relevant to the advertised professorship together with an explanation of their relevance

b) PDF versions of these five publications provided either as email attachments or through URLs of downloadable copies (PDF versions of monographs need only be provided if easily available.)

* List of talks given, including detailed information about invited plenaries at international conferences

* List of projects supported by third-party funds

* Short survey of previous academic teaching and list of supervised PhD theses

Applications in English should be submitted by email (preferably as PDF attachments) to the Dean's office of the Faculty of Mathematics of the University of Vienna, Nordbergstraße 15, A- 1090 Wien, dekanat.mathematik@univie.ac.at, no later than June 10th, 2011 with reference DK 506-07/2011.

Submitted by: Prof.Dr.Heinz W. Engl E-Mail: heinz.engl@univie.ac.at

Vice Rector for Research and Career Development

University of Vienna Phone:+43-(0)1-427710050

A-1010 Wien Fax:+43-(0)1-427710099

<http://www.univie.ac.at> Oesterreich / Austria

and

Institute Director

Johann Radon Institute for Computational and Applied Mathematics (RICAM),

Austrian Academy of Sciences, A-4040 Linz, Austria

E-Mail: heinz.engl@oeaw.ac.at Fax: +43-(0)732-24685212

<http://www.ricam.oeaw.ac.at>

Subject: Special Issues on Leonhard Paul Euler's:

Functional Equations and Inequalities

From: "Int. J. Tomography & Statistics" <eic.ijts@yahoo.com>

Date: Tue, 12 Apr 2011

Dear Colleagues,

Greetings from International Journal of Applied Mathematics & Statistics (IJAMAS).

Following issues are available without subscription fee.

<http://www.ceser.in/ceserp/index.php/ijamas/issue/archive>

February, Volume 07, Number F07

Special Issue-1 on Leonhard Paul Euler's: Functional Equations and

Inequalities (Guest Editor-in-Chief: Professor John Michael Rassias)

March, Volume 08, Number M07

Special Issue-2 on Leonhard Paul Euler's: Mixed Type Partial

Differential Equations (Guest Editor-in-Chief: Professor John Michael Rassias)

June, Volume 09, Number J07

Special Issue-3 on Leonhard Paul Euler's: Differential Equations and Inequalities (Guest Editor-in-Chief: Professor John Michael Rassias) September, Volume 10, Number S07

Special Issue-4 on Leonhard Paul Euler's: Differential Equations and Inequalities (Guest Editor-in-Chief: Professor John Michael Rassias) November, Volume 11, Number N07

Special Issue-5 on Leonhard Paul Euler's: Mathematical Topics and Applications (Guest Editor-in-Chief: Professor John Michael Rassias) December, Volume 12, Number D07

Special Issue-6 on Leonhard Paul Euler's: Dynamical Systems and Integro-Differential Equations (Guest Editor-in-Chief: Professor John Michael Rassias)

Just REGISTER your-self to download the paper(s) form these Special Issues on Leonhard Paul Euler's: Functional Equations and Inequalities (Guest Editor-in-Chief: Professor John Michael Rassias)

Sincerely

Executive Editor,
International Journal of Applied Mathematics & Statistics
<http://www.ceser.in/ijamas.html>
e-mail: ceser_info@yahoo.com, eic.ijamas@yahoo.com

Subject: Contents, Inverse Problems, volume 27, issue 5, May 2011
From: Stephanie Kent <Stephanie.Kent@iop.org>
Date: Tue, 28 Apr 2011

Inverse Problems May 2011 Volume 27, Issue 5
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On the use of Lamb modes in the linear sampling method for elastic waveguides L Bourgeois, F Le Lou\er and E Lun\eville

A local inverse spectral theorem for Hamiltonian systems
Matthias Langer, Harald Woracek

Inverse bifurcation problems for nonlinear Sturm--Liouville problems
Tetsutaro Shibata

Synthetic aperture radar imaging exploiting multiple scattering
V Krishnan and B Yazici

A 2D nonlinear inversion of well-seismic data
Ludovic M\etivier, Patrick Lailly, Florence Delprat-Jannaud,
and Laurence Halpern

Reconstruction from a few projections by ℓ_1 -minimization of

the Haar transform E Gardu\ no, G T Herman and R Davidi

Quantitative thermo-acoustics and related problems
Guillaume Bal, Kui Ren, Gunther Uhlmann and Ting Zhou

Mathematical framework for a new microscopic electrical impedance
tomography system
Eunjung Lee, Jin Keun Seo, Eung Je Woo and Tingting Zhang

Bayesian matched-field geoacoustic inversion
Stan E Dosso and Jan Dettmer

A generalized approach to local regularization of linear Volterra
problems in L^p spaces Cara D Brooks and Patricia K Lamm

Reconstructing perfectly electric conductors by the subspace-based
optimization method with continuous variables
Xiuzhu Ye, Yu Zhong and Xudong Chen

On the Dirichlet boundary controllability of the one-dimensional heat
equation: semi-analytical calculations and ill-posedness degree
Faker Ben Belgacem and Sidi Mahmoud Kaber

2D and 3D reconstructions in acousto-electric tomography
Peter Kuchment and Leonid Kunyansky

Boundary data completion: the method of boundary value problem
factorization Amel Ben Abda, Jacques Henry and Fadhel Jday

Individual articles are free for 30 days following their publication
on the web. This issue is available at:
<http://iopscience.iop.org/0266-5611/27/5>

Submitted by Stephanie Kent, Production Editor

Subject: J. Inverse and Ill-posed Problems, Vol. 18 (8-9), Vol. 19 (1)
From: "reference-global@degruyter.com" <reference-global@degruyter.com>
Date: Sun, 3 Apr 2011

J. Inverse and Ill-posed Problems March 2011 Vol. 18, No. 8
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Inverse and ill-posed problems (Conference in Novosibirsk)
S. I. Kabanikhin

Iterative processes of gradient type with applications to gravimetry
and magnetometry inverse problems Vladimir Vasin and Georgy Skorik

Some mathematical problems of acoustic probing
Yurii Evgenievich Anikonov, Andrey Egorovich Kovtanyuk,
and Mikhail Vladimirovich Neshchadim

Algorithm of finding a body projection within an absorbing and scattering medium

Dmitry Sergeevich Anikonov, Vasilii Genadievich Nazarov,
and Igor Vasilievich Prokhorov

Determination of physical and geometrical characteristics of layered inhomogeneous elastic medium I. O. Bogulskii and Yu. M. Volchkov

On some classes of inverse problems for parabolic equations
Sergey Grigir'evich Pyatkov

The optimum of the M. M. Lavrent'ev method
Vitaly Pavlovich Tanana and Tatiana Nikolaevna Rudakova

Parameter identification methods of hydraulic models for the study of current water in open channels
Anatoly Fedorovich Voevodin and Valentina Sergeevna Nikiforovskaya

The above issue is now available online from Walter de Gruyter at:
<http://www.reference-global.com/toc/jiip/2011/18/8?ai=124&ui=34xi&af=T>

J. Inverse and Ill-posed Problems March 2011 Vol. 18, No. 9
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Recent advances in analytical and numerical methods in inverse problems for PDEs (minisymposium report)
Christian Clason and Maxim Shishlenin

On a class of finite difference methods for ill-posed Cauchy problems with noisy data
Anatoly B. Bakushinsky, Mikhail Yu. Kokurin, and Mikhail M. Kokurin

Numerical algorithm for two-dimensional inverse acoustic problem based on Gel'fand-Levitan-Krein equation
Sergey I. Kabanikhin and Maxim A. Shishlenin

Some regularization methods for a thermoacoustic inverse problem
Barbara Kaltenbacher and Wolfgang Polifke

Application of inversion methods in solving ill-posed problems for magnetic parameter identification of steel hull vessel
D. V. Lukyanenko, A. G. Yagola, and N. A. Evdokimova

On sequential minimization of Tikhonov functionals in ill-posed problems with a priori information on solutions
Mikhail Yu. Kokurin

The above issue is now available online from Walter de Gruyter at:
<http://www.reference-global.com/toc/jiip/2011/18/9?ai=124&ui=34xi&af=T>

J. Inverse and Ill-posed Problems May 2011 Vol. 19, No. 1
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An inverse problem for a system of evolution equations
Yurii E. Anikonov and Shumin Li

On solution uniqueness of the Dirichlet problem for a system of
partial differential equations on one function in the unit ball
Michail V. Beloglyadov and Vladimir P. Burskii

Function spaces and optimal currents in impedance tomography
Bangti Jin, Taufiqar Khan, Peter Maass, and Michael Pidcock

Identification problems for semilinear integro-differential hyperbolic
equations with transformed arguments
Alfredo Lorenzi and Francesca Messina

Why a minimizer of the Tikhonov functional is closer to the exact
solution than the first guess
Michael V. Klibanov, Anatoly B. Bakushinsky, and Larisa Beilina

Uniqueness for a hyperbolic inverse problem with angular control on the
coefficients Rakesh and Paul Sacks

On the Cauchy problem for operators with injective symbols in the
spaces of distributions Ivan V. Shestakov and Alexander A. Shlapunov

Computational methods for ill-posed problems of gravitational
gasodynamics
Vitaly A. Vshivkov, Galina G. Lazareva, Alexei V. Snytnikov,
Igor M. Kulikov, and Alexander V. Tutukov

The above issue is now available online from Walter de Gruyter at:
<http://www.reference-global.com/toc/jiip/2011/19/1?ai=124&ui=34xi&af=T>
----- end -----

Today's Editors:

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

Today's Topics:

Update: Int'l Congress on Industrial & Applied Mathematics
Deadline Extended: Int'l Congress on Image & Signal Processing
IPIA Announcement: Calderon Prize Winner is Guillaume Bal
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: May 2011 ICIAM 2011 eNewsletter
From: Bruce Bailey <Bailey@siam.org>
Date: Fri, 20 May 2011

If you haven't registered for ICIAM 2011 -- the International Congress on Industrial & Applied Mathematics from July 18-22, 2011 in Vancouver, Canada -- do so now! Advance online registration closes June 15, 2011. Here is the link: <http://bit.ly/gPYJTN>

For the first time, the Congress will be using social media to enhance conference experience both for attendees and those following proceedings remotely. Twitter will be used to deliver updates and announcements and to enable scientific discussion and interaction among delegates. Follow us on Twitter (<http://twitter.com/#!/iciam2011>) to keep up to date with conference announcements. If you're tweeting about ICIAM 2011, before, during or after the meeting, please use the hashtag #ICIAM2011. Also, watch for a mobile phone app to be available soon.

Students looking to network with and meet mathematicians and professionals from around the world should consider volunteering. Opportunities range from preparing delegate kits and shooting photographs to assisting at outreach events. There is also the possibility of volunteers receiving travel funding and/or registration reimbursement. For complete details on the openings available, please visit the volunteers page at <http://bit.ly/ltP1Hn>.

Students can also enjoy a casual, social interaction with peers at the Student Networking Social on Monday, July 18. Organized by the Mitacs Student Advisory Committee, the event will involve a workshop on networking plus a chance to network with professionals and students from all over the world. The social includes lunch and door prizes.

Here are a few highlights about the scientific program (<http://bit.ly/mpgsJm>):

In a panel on Statistical Sciences, Dr. Bin Yu (University of California Berkeley, USA) will focus on the massive amounts of data collection in science, engineering, social science, finance and other fields, enabled by great advances in information technology. Dr. Zhi Geng (Peking University, China) will talk about statistical approaches for evaluating and discovering causal effects and networks.

The Fluid Mechanics theme will be highlighted by an invited talk by Pierre Sagaut (Pierre et Marie Curie, France) who will explain the significance of turbulent flow simulation in both fundamental research and engineering applications. The talk will cover recent advances in uncertainty quantification in addition to turbulence models. Description of turbulent flows and investigation of their properties as well as control problems connected with fluid flows will be among the topics presented in the Mathematical Fluid dynamics minisymposium organized by Andrei Fursikov (Moscow State University, Russia).

Ron Kimmel (Technion Israel Institute of Technology, Israel) will talk about geometric objects as metric spaces, which allow a better understanding of facial similarities and body posturing. As part of the Image and Signal Processing theme, his invited lecture will elucidate on image and shape analysis in the area of image processing and computer graphics. As part of the same theme, Vicent Caselles (Universitat Pompeu-Fabra, Spain) will address image recovery in the case of missing and corrupted images. The talk will focus on the applications of image inpainting and recovery in video and cinema post-production.

The panel on Computational and Modeling Challenges in Industry will address just that. An invited talk by Peter Fritzson (Linköping University, Sweden) will give an overview of emergent computer languages that support modeling in addition to programming. The lecture will specifically focus on Modelica, a language used for mathematical modeling and simulation of complex systems.

Look up the full program (click here: <http://bit.ly/gWwRgk>) to browse a complete list (<http://bit.ly/cBHdGk>) of topics for the thematic minisymposia, each of which includes a Lead Lecture followed by six session speakers.

We look forward to seeing you in Vancouver!

Best wishes,

Arvind Gupta
President, ICIAM 2011
CEO & Scientific Director, Mitacs

Subject: CISP'11-BMEI'11 Extended Deadline 3 June, Shanghai, China
From: Bing Li <CISP-BMEI-cfp@dhu.edu.cn>
Date: Thu, 26 May 2011

Dear Colleague,

We cordially invite you to submit a paper to the upcoming 4th International Congress on Image and Signal Processing (CISP 2011) and the 4th International Conference on BioMedical Engineering and Informatics (BMEI 2011), to be jointly held from 15-17 October 2011, in Shanghai, China. Due to numerous requests, the submission deadline is extended to 3 June 2011.

Shanghai is the largest city in China, with famous historical and cultural heritage. Attractions include Yuyuan Garden ("Happy Garden" built in Ming Dynasty), Shanghai Museum with 120,000 pieces of rare relics, Shanghai World Financial Center, Jade Buddha Temple (Song Dynasty), Oriental Pearl TV Tower, Zhujiajiao Water Town, and Expo 2010 site.

All papers in conference proceedings will be indexed by both EI Compendex and ISTP, as well as included in the IEEE Xplore (IEEE Conference Record Number for CISP'11: 18205; IEEE Conference Record Number for BMEI'11: 18206. CISP-BMEI 2008-2010 papers have already been indexed in EI Compendex). Substantially extended versions of best papers will be considered for publication in a CISP'11-BMEI'11 special issue of the Computers and Electrical Engineering journal (SCI-indexed).

CISP-BMEI is a premier international forum for scientists and researchers to present the state of the art of multimedia, signal processing, biomedical engineering and informatics. The previous CISP-BMEI each attracted over 3000 submissions from all over the world, with acceptance rate around 50%. The registration fee of US\$400 includes proceedings, lunches, dinners, banquet, coffee breaks, and all technical sessions. CISP'11-BMEI'11 is technically co-sponsored by the IEEE Engineering in Medicine and Biology Society.

To promote international participation of researchers from outside the country/region where the conference is held (i.e., China's mainland), researchers outside of China's mainland are encouraged to propose invited sessions. The first author of each paper in an invited session must not be affiliated with an organization in China's mainland. All papers in the invited sessions can be marked as "Invited Paper". The organizer(s) for each invited session with at least 6 registered papers will (jointly) enjoy an honorarium of USD 400. Invited session organizers will solicit submissions, conduct reviews and recommend

accept/reject decisions on the submitted papers. Invited session organizers will be able to set their own submission and review schedules, as long as a set of recommended papers is determined by 15 August 2011. Each invited session proposal should include: (1) the name, bio, and contact information of each organizer of the invited session; (2) the title and a short synopsis of the invited session. Please send your proposal to CISP-BMEI@dhu.edu.cn

For more information, visit the conference web page:

<http://cisp-bmei.dhu.edu.cn>

If you have any questions after visiting the conference web page, please email the secretariat at CISP-BMEI@dhu.edu.cn

Join us at this major event in exciting Shanghai !!!

Organizing Committee
CISP-BMEI@dhu.edu.cn

Subject: Calderon Prize
From: Gunther Uhlmann <gunther@math.washington.edu>
Date: Mon, 30 May 2011

Guillaume Bal Awarded the Calder\`on Prize

IPIA has awarded the third Calder\`on Prize to Guillaume Bal from the Department of Applied Mathematics and Applied Physics at Columbia University. The ceremony was held at the start of AIP 2011 in College Station, Texas. The international prize committee consisted of Martin Burger, Hyeonbae Kang, Yaroslav Kurylev, George Papanicolaou and William Symes (chair). The committee citation reads: "The Calder\`on Prize is awarded to Guillaume Bal, for his deep and innovative research in analysis and numerical analysis of waves in strongly scattering materials, radiative transport, inverse problems of waves, diffusion and transport, and applications to medical and other imaging technologies, particularly photoacoustic tomography." Previous winners of the award were Matti Lassas in 2007 and Martin Burger in 2009.

Bal received the PhD at the University of Paris VI in France in 1997 under the direction of Yvonne Maday. His PhD thesis ``Coupling of Equations and Homogenization in Neutron Transport" won the Jean-Pierre Lepetit Prize for the best PhD thesis defended in 1997-1998 at the Direction des Etudes et Recherches d'Electricit\`e de France (EDF). He was a postdoc at Stanford 1997-1999 and L.E. Dickson Instructor at the University of Chicago 1999-2001. He became Assistant Professor at Columbia in 2001 and Full Professor in 2008. Other awards include an Alfred P. Sloan Fellowship in 2003 and an NSF Career Award, also in 2003.

Gunther Uhlmann

Subject: Inverse Problems, volume 27, issue 6, June 2010
From: Stephanie Kent <Stephanie.Kent@iop.org>
Date: Thu, 26 May 2011

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Inversion of the circular averages transform using the Funk transform
Can Evren Yarman, Birsen Yazici

An algorithm for total variation regularization in high-dimensional
linear problems Michel Defrise, Christian Vanhove, Xuan Liu

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F Assous, M Kray, F Nataf, E Turkel

Electrical impedance tomography in anisotropic media with known
eigenvectors

Juan-Felipe P J Abascal, William R B Lionheart, Simon R Arridge,
Martin Schweiger, David Atkinson, David S Holder

The framework of the enclosure method with dynamical data and its
applications Masaru Ikehata

On multidimensional inverse scattering in an external electric field
asymptotically zero in time

Tadayoshi Adachi, Tatsuya Kamada, Masayuki Kazuno, Keisuke Toratani

Support vector regression for the solution of linear integral equations
Jochen Krebs

Coherent interferometric imaging, time gating and beamforming
Liliana Borcea, Josselin Garnier, George Papanicolaou, Chrysoula Tsogka

Efficient solution of an inverse problem in cell population dynamics
Andreas Groh, Jochen Krebs, Mathias Wagner

Feature reconstruction in inverse problems
Alfred K Louis

Analyticity and uniform stability in the inverse singular
Sturm-Liouville spectral problem Rostyslav O Hryniv

Exact localization and superresolution with noisy data and random
illumination Albert C Fannjiang

An efficient numerical method for a shape-identification problem arising
from the heat equation Helmut Harbrecht, Johannes Tausch

Individual articles are free for 30 days following their publication on
the web. This issue is available at:
<http://iopscience.iop.org/0266-5611/27/6>

Submitted by Stephanie Kent, Production Editor

Subject: Table of Contents, Journal of Inverse and Ill-posed Problems
From: reference-global@degruyter.com <reference-global@degruyter.com>
Date: Wed, 1 Jun 2011

Journal of Inverse and Ill-posed Problems 2011 Volume 19, No 2
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Time-optimal reconstruction of Riemannian manifold via boundary
electromagnetic measurements
Mikhail I. Belishev and Maxim N. Demchenko

Characteristic interactions and successive approximations in problems on
evaluating coefficients of transport equation and elemental content of a
medium Alfred I. Khisamutdinov

Global uniqueness in determining electric potentials for a system of
strongly coupled Schrodinger equations with magnetic potential terms
Shitao Liu, Roberto Triggiani

Identification problems for quasilinear first-order partial differential
equations in one space dimension and applications
Alfredo Lorenzi

An identification problem for the Ornstein-Uhlenbeck operator
Luca Lorenzi

Estimation of accuracy of finite-dimensional methods of regularization
Vitaly P. Tanana, Natalya M. Yaparova

The above issue is now available online at:
<http://www.reference-global.com/toc/jiip/2011/19/2?ai=124&ui=34xi&af=T>

Subject: Table of Contents, Nonlinear Analysis: Modelling and Control
From: Romas Baronas <romas.baronas@mif.vu.lt>
Date: Tue, 31 May 2011

Nonlinear Analysis: Modelling and Control 2011 Volume 16, No 2
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Perturbation solutions of fifth order oscillatory nonlinear systems
M.A. Akbar, Sk.T.A. Siddique

Exact solutions for unsteady axial Couette flow of a fractional Maxwell
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Natural convection in a square inclined enclosure with vee-corrugated
sidewalls subjected to constant flux heating from below

S.H. Hussain, A.K. Hussein, M.M. Mahdi

Vectorization of human pelvis objects in X-ray images

A. Juozapavicius, R. Markauskas

A comparison of delayed SIR and SEIR epidemic models

A. Kaddar, A. Abta, H.T. Alaoui

The Kaldor-Kalecki stochastic model of business cycle

G. Mircea, M. Neamtu, D. Opris

A seventh order numerical method for singular perturbed
differential-difference equations with negative shift

K. Phaneendra, Y.N. Reddy, GBSL. Soujanya

Alternating-direction method for a mildly nonlinear elliptic equation with
nonlocal integral conditions M. Sapagovas, O. Stikoniene

On the third order boundary value problems with asymmetric nonlinearity

S. Smirnov

Global dynamics of a predator-prey system with Holling type II functional
response X. Tian, R. Xu

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 -----

Today's Editors:

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

Today's Topics:

Software: Constrained & Regularized Linear Systems Solvers
Call for Special Issue Proposals: Int'l J. Imaging & Robotics
Table of Contents: Inverse Problems
Table of Contents: Int'l J. Tomography & Statistics

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

<http://www.math.msu.edu/ipnet>
(website may be unavailable during August 1-15)

Subject: Constrained & regularized linear systems solvers
From: rondall jones <rejones7@msn.com>
Date: Fri, 24 Jun 2011

Readers of IPNet Digest may be interested in trying the programs and libraries offered at www.rejonesconsulting.com.

The primary items of interest would probably be the set of constrained and regularized linear system solvers offered. These programs solve arbitrary shaped and sized linear systems, with optional inequality and equality constraints. Included are traditional least squares solvers, including total least squares, plus automatically regularized solvers (based on Picard Condition analysis) and manually regularized solvers (based on the discrepancy method).

There are packaged programs which read an Excel-prepared input file, and the C++ libraries used by these programs are offered. Comments from users are welcome.

--Ron Jones
rejones7@msn.com

Subject: Call for Special Issue Proposals
From: <IJTS-owner@yahoogroups.com>
Date: Thu, 7 Jul 2011 16:14:25 +0000

www.ceser.in/iji.htm

Editors-in-Chief of the International Journal of Imaging and Robotics (ISSN 2231-525X) [www.ceser.in/iji.html] would like to invite scholars of image processing and robotics to submit a special issue proposal.

The purpose of the special issue is to provide readers with a collection of articles on a specific topic of imaging and robotics.

For any inquiry, please contact Editor-in-Chief at: [eic.ijts\[at\]yahoo.com](mailto:eic.ijts@yahoo.com) and a copy to [radu.precup\[at\]aut.upt.ro](mailto:radu.precup[at]aut.upt.ro).

Subject: Inverse Problems, volume 27, issue 7, July 2011
From: Stephanie Kent <Stephanie.Kent@iop.org>
Date: Thu, 23 Jun 2011

Inverse Problems July 2011 Volume 27, Issue 7
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Reconstruction of the interface between two-layered media using far field measurements Lahc`ene Chorfi and Patricia Gaitan

Comparison of optimal design methods in inverse problems
H T Banks, K Holm and F Kappel

Multi-source quantitative photoacoustic tomography in a diffusive regime Guillaume Bal and Kui Ren

Optimal geometry toward uniform current density electrodes
Yizhuang Song, Eunjung Lee, Eung Je Woo and Jin Keun Seo

An isospectral problem related to the Dirichlet eigenvalues and the Neumann eigenvalues of a string equation and some related problems
Chao-Liang Shen

Singular value decomposition for the truncated Hilbert transform:part II
A Katsevich

Inverse spectral problem for Jacobi matrices with partial spectral data
Guangsheng Wei and Zhaoying Wei

Convergence rates for total variation regularization of coefficient identification problems in elliptic equations
I Dinh Nho H`ao and Tran Nhan Tam Quyen

An adaptive finite element reconstruction of distributed fluxes
Jingzhi Li, Jianli Xie and Jun Zou

Extrapolation in variable RKHSs with application to the blood glucose

reading V Naumova, S V Pereverzyev and S Sivananthan

Dynamical inverse problem on a metric tree
S A Avdonin, B P Belinskiy and J V Matthews

Contrast source inversion method applied to relatively high contrast objects
Paul-Andr'e Barri`ere, J'er^ome Idier,
Jean-Jacques Laurin and Yves Goussard

Conditional stability and uniqueness for determining two coefficients in a hyperbolic--parabolic system Bin Wu and Jijun Liu

Linear convergence rates for Tikhonov regularization with positively homogeneous functionals Markus Grasmair

Individual articles are free for 30 days following their publication on the web. This issue is available at:
<http://iopscience.iop.org/0266-5611/27/7>

Submitted by Stephanie Kent, Production Editor

Subject: IJAMAS Table of Contents, volume 25, issue 1, Year 2012
From: Int. J. Tomography & Statistics <tanujfma@yahoo.com>
Date: Sun, 26 Jun 2011

International Journal of Applied Mathematics & Statistics
2012, Volume 25, Issue 1
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Correspondence Analysis for Fuzzy Data (CAFD): The practical application;
Representative example with defuzzified-geometrical display
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Optimum times for step-stress cumulative exposure model using
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in depression S. Lakshmi, I. Christy Raj

Geometric Pricing of Games Yukio Hirashita

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statistics Eman Abu El-Hassan Mahmoud

An alternative approach to handle high dimensionality in DEA:
Consumption efficiency analysis in Malaysia car market
G. L. C. Yap, W. R. Ismail, Z. Isa

A New MATLAB Implementation and Analysis of A Moving Grid Method For

Systems of One-Dimensional Time-Dependent Partial Differential Equations
Based on The Equidistribution Principle
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Obtaining a Unique Solution for Cross Efficiency in order to rank DMUs
in Data Envelopment Analysis
G. R. Jahanshahloo, R. Fallahnejad

An Original Proof Of The Hadwiger conjecture
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IPNet Digest Volume 18, Number 07 September 12, 2011

Today's Editor:

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

Today's Topics:

Positions: Colorado State University
New Book: Thermal Measurements and Inverse Techniques
Table of Contents: Journal of Inverse and Ill-Posed Problems
Table of Contents: Inverse Problems in Science and Engineering
Table of Contents: Inverse Problems and Imaging

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

Subject: Positions at Colorado State University
From: Jennifer Mueller <mueller@math.colostate.edu>
Date: 9/6/2011

Assistant Professor in Applied and Computational Mathematics
Department of Mathematics

The Department of Mathematics at Colorado State University invites applications for a tenure-track Assistant Professor in the area of Applied and Computational Mathematics, broadly construed, including in particular applied analysis. Candidates whose research has strong connections to applications and/or computation and potential for collaboration with existing members of the Department or across campus are encouraged to apply. The job responsibilities include teaching at the university level. The full job description may be viewed at <http://www.natsci.colostate.edu/employment/ACM/>.

Complete applications include the submission of an AMS cover sheet, a complete curriculum vitae, a statement of interest in the Applied/Computational position specifically, including a summary of plans for future scholarly activities, a teaching statement, and at least three letters of recommendation to <http://www.natsci.colostate.edu/employment/ACM/>.

Other correspondence should be sent to the Search Chair, ACsearch2011@math.colostate.edu. Applications completed by October 30, 2011 are guaranteed full consideration. Complete applications of the semi-finalist candidates will be available to department faculty for review.

Colorado State University is an EO/EA/AA employer. Colorado State University conducts background checks on the final candidates.

Albert C. Yates Endowment Chair in Mathematics
Department of Mathematics

The Department of Mathematics at Colorado State University invites applications for the Albert C. Yates Chair in Mathematics. This position is an endowed chair, with a six-year term, that was created through a gift from the Bohemian Foundation, and will include an appointment as a regular faculty member in the Department of Mathematics at the Full or Associate Professor level. The terms of the endowment require the appointee to have excellent teaching skills, a commitment to applied research, a record of community service and a practical approach to mathematics. The full job description may be viewed at <http://www.natsci.colostate.edu/employment/Yates/>. Research interests of current faculty may be found at www.math.colostate.edu/research.

Complete applications include the submission of an AMS cover sheet, a complete curriculum vitae, a statement of interest in the Yates Chair position, including evidence of leadership and a summary of plans for future scholarly, instructional and other professional activities, as well as a list of at least four names of references, with contact information, to <http://www.natsci.colostate.edu/employment/Yates/>. Other correspondence should be sent to the Search Chair, YatesSearch2011@math.colostate.edu. Applications completed by November 11, 2011 are guaranteed full consideration. Complete applications of the semi-finalist candidates will be available to department faculty for review.

Colorado State University is an EO/EA/AA employer. Colorado State University conducts background checks on the final candidates.

Subject: New Book: Thermal Measurements and Inverse Techniques
From: Olivier Fudym <fudym@mines-albi.fr>
Date: 8/26/2011

New Book : Thermal Measurements and Inverse Techniques

Edited by Helcio R.B. Orlande, Olivier Fudym, Denis Maillet, Renato M. Cotta

With its uncommon presentation of instructional material regarding mathematical modeling, measurements, and solution of inverse problems, Thermal Measurements and Inverse Techniques is a one-stop reference for those dealing with various aspects of heat transfer.

Progress in mathematical modeling of complex industrial and environmental systems has enabled numerical simulations of most physical phenomena. In addition, recent advances in thermal

instrumentation and heat transfer modeling have improved experimental procedures and indirect measurements for heat transfer research of both natural phenomena and manmade applications. These new resources and methods help theoretical, computational, and experimental researchers synergistically interact to better understand the physical phenomena being studied. This book explores how inverse analysis can be used to increase understanding of interactions between technological systems and nature, by bridging the gap between data derived from measurements and information from theoretical predictions.

This book:

- * Explores theoretical background and examples
- * Outlines practical applications, including sample test cases
- * Presents inverse techniques to estimate spatially and time-varying functions (such as heat sources, fluxes, and thermophysical properties), as well as constant parameters in heat transfer problems

Written by international experts, this book assumes basic heat transfer knowledge, presenting a balanced approach suitable for advanced undergraduates and graduate students, as well as practicing engineers and academic and industrial researchers. With coverage of modeling at the micro- and nanoscales, this book covers classic and novel approaches to help readers understand and solve heat transfer problems of all kinds.

CRC Press

Series: Heat Transfer

ISBN: 9781439845554

Publication Date: May 24, 2011

Number of Pages: 770

Submitted by: Olivier Fudym

Tel : 05 63 49 30 24 Fax : 05 63 49 32 43

RAPSODEE FRE CNRS 3213, Ecole des Mines d'Albi,

Campus Jarlard - Route de Teillet, 81013 Albi CT Cedex 09

<http://www.enstimac.fr>

Subject: Journal of Inverse and Ill-posed Problems, Vol.19, No.3, Aug 11

From: reference-global@degruyter.com

Date: Sat, 6 Aug 2011

Journal of Inverse and Ill-posed Problems Aug 2011 Volume 19, No. 3

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Logarithmic convergence rate of Levenberg-Marquardt method with application to an inverse potential problem

Christine Bockmann, Athassawat Kammanee, and Andreas Braunss

Regularization and error estimate for a spherically symmetric backward heat equation Wei Cheng, Chu-Li Fu, and Feng-Juan Qin

Inverse problem and null-controllability for parabolic systems
Galina C. Garcia and Takeo Takahashi

Determination of sets with positive reach by their projection type
images Vladimir Golubyatnikov and Vladimir Rovenski

On a finite asymptotic integral transform Nassar H. S. Haidar

Exponential instability in the Gel'fand inverse problem on the energy
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A generalization of continuous regularized Gauss-Newton method for
ill-posed problems M. Thamban Nair and P. Ravishankar

Direct and inverse problems of the theory of wave propagation in an
elastic inhomogeneous medium Aydys A. Sedipkov

Determination of the unknown time dependent coefficient $p(t)$ in the
parabolic equation $u_t = Du + p(t)u + ph(x, t)$
Yunhua Ou, Jing Zhao, Zhenhai Liu, and Jiang Tang

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Mikhail M. Lavrentiev, Vladimir G. Romanov, Maxim A. Shishlenin,
Vitaly P. Tanana, Alexander V. Tikhonravov, Vladimir V. Vasin,
and Anatoly G. Yagola

International Conference "Inverse and Ill-Posed Problems of
Mathematical Physics" dedicated to the 80th birthday of Academician
M. M. Lavrentiev

The Sixth International Conference "Inverse Problems: Modeling &
Simulation"

Third International Scientific Conference and Young Scientists School
"Theory and Computational Methods for Inverse and Ill-Posed Problems"

Subject: Inverse Problems in Science and Engineering TOC
From: Smith, Ian <Ian.Smith@tandf.co.uk>
Date: Mon, 8 Aug 2011

Inverse Problems in Science and Engineering Aug 2011 Vol.19, Issue 6
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Modelling mechanical interfaces experiencing micro-slip/slap
H. Jalali, A. Hedayati, and H. Ahmadian

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The determination of heat sources in two dimensional inverse steady heat

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M. Mierzwiczak and J.A. Ko dziej

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Assessment of elastic plastic material parameters comparatively by three
procedures based on indentation test and inverse analysis
Gabriella Bolzon, Vladimir Buljak, Giulio Maier and Bartosz Miller

An inverse problem for Helmholtz equation
M. Tadi, A.K. Nandakumaran and S.S. Sritharan

A computational method to estimate the unknown coefficient in a wave
equation using boundary measurements Wenyan Liao

Machine learning approach for locating phase interfaces using conductivity
probes Juha Reunanen, Mika Mononen, Marko Vauhkonen, Anssi Lehtikoinen
and Jari P. Kaipio

Subject: Inverse Problems and Imaging, Vol. 5, No. 3, August 2011
From: Liwei Ning <newsletter@aimsciences.org>
Date: Wed, 24 Aug 2011

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Alpha divergences based mass transport models for image matching problems
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Anisotropic total variation regularized L1 approximation and
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Rustum Choksi, Yves van Gennip and Adam Oberman

Errors of regularisation under range inclusions using variable Hilbert
scales Markus Hegland and Bernd Hofmann

A fast algorithm for global minimization of maximum likelihood based on
ultrasound image segmentation
Jie Huang, Xiaoping Yang and Yunmei Chen

Microlocal aspects of common offset synthetic aperture radar imaging
Venkateswaran P. Krishnan and Eric Todd Quinto

Explicit characterization of the support of non-linear inclusions
Armin Lechleiter

Identification of a real constant in linear evolution equations in

Hilbert spaces Alfredo Lorenzi and Gianluca Mola

Inverse boundary value problems for discrete Schrodinger operators on the multi-dimensional square lattice Hisashi Morioka

Solving an inverse problem for the wave equation by using a minimization algorithm and time-reversed measurements Lauri Oksanen

Volume 5, Number 3 is available online at
<http://www.aims sciences.org/journals/contentListnew.jsp?pubID=458>
----- end -----

Today's Editors:

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

Today's Topics:

New Book: Microstructured Materials: Inverse Problems
Position in Mathematical Sciences: Khalifa University
Table of Contents: Inverse 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: New Book: Microstructured Materials: Inverse Problems
From: Jaan Janno <janno@ioc.ee>
Date: 9/15/2011

New Book: Microstructured Materials: Inverse Problems

Authors: J. Janno, J. Engelbrecht

Complex, microstructured materials are widely used in industry and technology and include alloys, ceramics and composites. Focusing on non-destructive evaluation (NDE), this book explores in detail the mathematical modeling and inverse problems encountered when using ultrasound to investigate heterogeneous microstructured materials. The outstanding features of the text are firstly, a clear description of both linear and nonlinear mathematical models derived for modelling the propagation of ultrasonic deformation waves, and secondly, the provision of solutions to the corresponding inverse problems that determine the physical parameters of the models. The data are related to nonlinearities at both a macro- and micro- level, as well as to dispersion.

The authors' goal has been to construct algorithms that allow us to determine the parameters within which we are required to characterize microstructure. To achieve this, the authors not only use conventional harmonic waves, but also propose a novel methodology based on using solitary waves in NDE. The book analyzes the uniqueness and stability of the solutions, in addition to providing numerical examples.

Springer

ISBN 978-3-642-21583-4

Publication Date: September 15, 2011

Number of Pages: 160

Subject: Khalifa University - Posting of Math Faculty Advert

From: Elizabeth Harvey <elizabeth.harvey@kustar.ac.ae>

Date: 9/15/2011

Faculty Positions Available Starting February 2012

Department of Applied Mathematics and Sciences
Khalifa University of Science, Technology, and Research (UAE)

Position Description: The Department of Applied Mathematics and Sciences at Khalifa University invites applications for faculty positions starting February 2012. Applicants for all ranks will be considered. Desirable attributes for candidates include an interdisciplinary research orientation in the mathematical sciences; successful teaching record; post-doctoral, industrial, or practical experience; collaborative possibilities with faculty members in the College of Engineering and related institutes and centers; and an interest in innovative applications. Candidates should have strong potential or demonstrated capability for effective research and teaching in mathematics. An earned Ph.D. in mathematics/statistics is required for the position. Review of applications will begin on October 2011 and will continue until the positions are filled. Applicants should indicate their research specialties and interests in their cover letter. Vita, three reference letters, teaching and research statements should be electronically filed at <https://khalifauniversity.peopleadmin.com/postings/166>. For further information regarding the University and its programs, please visit the web site <http://www.kustar.ac.ae>.

Khalifa University of Science, Technology and Research is a new multicultural, coeducational institution with significant support from the government of the Emirate of Abu Dhabi. The University is pursuing a grand vision to be recognized as a leading international research university that cultivates and sustains an academic culture founded on critical thinking, human values, interdisciplinary pursuits, technical excellence, and lifelong learning. The University insists on the highest standards of academic excellence, balancing the demands for rapid growth with an uncompromising commitment to quality. It is committed to attracting, developing, and retaining a diverse faculty and staff by developing a challenging, rewarding, and enriching intellectual environment and by providing world-class facilities and resources. It is also committed to graduating a superlative cadre of scientists and engineers who will be leaders and innovators in the Emirate of Abu Dhabi, UAE society, the region, and the world.

To apply candidates should send their CV, research and teaching

statements to:

<https://khalifauniversity.peopleadmin.com/postings/166>

Submitted by: Elizabeth Harvey, Recruitment Supervisor,
Khalifa University of Science, Technology & Research (KUSTAR)
P.O.Box 127788, Abu Dhabi, UAE
T: +971-(0)2-4018092
F: +971-(0)2-4472442
E: elizabeth.harvey@kustar.ac.ae

Subject: Inverse Problems, volume 27, issue 9, September 2011
From: Stephanie Kent <Stephanie.Kent@iop.org>
Date: Wed, 28 Sep 2011

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An alternating extragradient method for total variation-based image restoration from Poisson data S Bonettini and V Ruggiero

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Stability of direct and inverse eigenvalue problems: the case of complex potentials Miklós Horváth and Márton Kiss

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A boundary perturbation method for recovering interface shapes in layered media Alison Malcolm and David P Nicholls

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Individual articles are free for 30 days following their publication on the web. This issue is available at:

<http://iopscience.iop.org/0266-5611/27/7>

Submitted by Stephanie Kent, Production Editor

Subject: Table of Contents, Nonlinear Analysis: Modelling and Control
From: Romas Baronas <romas.baronas@mif.vu.lt>
Date: Mon, 26 Sep 2011

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On a boundary value problem to third order PDE with multiple
characteristics Y.P. Apakov and S. Rutkauskas.

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Submitted by Dr. Romas Baronas, Deputy-Editor-in-Chief
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Today's Editors:

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

Today's Topics:

Conference: Mathematical Methods of Computed Tomography
Workshop: Optimization and Inverse Problems in Electromagnetism
Workshop: AWM Workshop at 2012 SIAM Annual Meeting
New Book: Dynamical Systems Method and Applications
Table of Contents: Inverse Problems

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

Subject: CBMS conference announcement
From: "Ambartsoumian, Gaik" <gambarts@uta.edu>
Date: 10/6/2011

THE 2012 NSF-CBMS CONFERENCE ON
MATHEMATICAL METHODS OF COMPUTED TOMOGRAPHY

May 29-June 2, 2012

The Department of Mathematics at The University of Texas at Arlington is hosting an NSF-CBMS Conference on Mathematical Methods of Computed Tomography during May 29-June 2, 2012, featuring Distinguished Professor Peter Kuchment of Texas A&M University as the principal speaker. Some additional lectures devoted to numerical and algorithmic issues of tomography will be delivered by Professor Leonid Kunyansky (Univ. of Arizona).

Financial support for attending the conference will be provided to about 25-30 participants. Established researchers as well as interested newcomers, postdoctoral fellows, and graduate students, are invited to attend. An online application and further information are available at:

<http://omega.uta.edu/~aktosun/cbms2012>

Even though the application deadline is February 15, 2012, early applications are encouraged.

For more information please contact the organizers:

Prof. Tuncay Aktosun: aktosun@uta.edu
Prof. Gaik Ambartsoumian: gambarts@uta.edu
Prof. Julianne Chung: chungj@uta.edu

Submitted by: Gaik Ambartsoumian, Assistant Professor
Department of Mathematics, The University of Texas at Arlington
Arlington, TX 76019-0408, USA
Tel: (817) 272-3384, Fax (817) 272-5802
URL: <http://www.uta.edu/faculty/gambarts/>
E-mail: gambarts@uta.edu

Subject: OIPE 2012 - Call for papers
From: <chairman.oipe2012@ugent.be>
Date: 10/31/2011

Dear colleagues,

It is with great pleasure that we announce that the 12th Workshop on Optimization and Inverse Problems in Electromagnetism, OIPE 2012, will be held on September 19th-21st, 2012, in Ghent, Belgium.

Prior to the workshop, several PhD courses on the topic will be organized on September 17th-18th, 2012.

We invite members of the scientific community in universities, research centers and industry to attend the workshop and present their recent achievements. Abstract submission deadline will be May 14th, 2012.

[The first call for abstract submission can be found at
<http://www.oipe2012.ugent.be/callforpaper.pdf>
-Eds.]

More information about the workshop and PhD course can be found on
<http://www.oipe2012.com/>.

We look forward to meet all of you in Ghent at OIPE 2012.

Prof. dr. ir. Luc Dupre, Chairman
dr. ir. Guillaume Crevecoeur, Conference secretary

Subject: AWM Workshop at SIAM Annual Meeting
From: Cammey Cole Manning <cammey.cole.manning@gmail.com>
Date: 10/31/2011

An AWM Workshop will be held in conjunction with the 2012 SIAM Annual Meeting, Minneapolis, MN, July 12-13, 2012. The workshop will consist of a graduate student poster session, presentations by Recent Ph.D.s, a mentoring event, and a career minisymposium. Workshop participants

will have the opportunity to meet with other women mathematicians at all stages of their careers. AWM invites women graduate students who have made substantial progress towards their theses topic to apply to present posters at the AWM Workshop; up to 10 women will be selected to present a poster. AWM invites women who have completed their Ph.D. within the past five years to apply to present research talks in two minisymposia at the AWM Workshop; one of the minisymposia will be open to talks from any applied area and the focus of the other minisymposium will be mathematical biology. Up to four women will be selected to give a talk in each minisymposium.

The application deadline is Friday, November 18, 2011.

More information and a link to the application can be found on the website:

<http://sites.google.com/site/awmmath/programs/workshops/SIAM-workshop>

Submitted by: Cammey Cole Manning, Ph.D.
Workshop Director, Association for Women in Mathematics
Professor of Mathematics and Engineering Program Coordinator
Meredith College, 3800 Hillsborough Street, Raleigh, NC 27607-5298
Telephone: 919-760-2851 Fax: 919-760-8763

Subject: New book
From: "Prof. Alexander G.Ramm" <ramm@math.ksu.edu>
Date: 10/16/2011

Announcement of a new book:
Dynamical Systems Method and Applications:
Theoretical Developments and Numerical Examples

The following web address contains the Wiley announcement of the book, which will appear, hopefully, in February of 2012.

<http://www.wiley.com/WileyCDA/WileyTitle/productCd-1118024281.html>

The book presents a general novel method, the Dynamical Systems Method (DSM), for solving operator equations, especially nonlinear and ill-posed. It contains not only algorithms and their mathematical justifications, but also many numerical examples of the implementation of these algorithms. The book is of interest to mathematicians interested in operator equations, numerical analysis, and wide range of applications.

Submitted by: Professor Alexander G.Ramm
Mathematics Department, Kansas State University,
Manhattan, KS 66506-2602, USA
785-532-0580 (office) 785-532-6750 (math. dept)
FAX 785-532-0546 (math.dept)
email: ramm@math.ksu.edu
URL: <http://www.math.ksu.edu/~ramm>

Subject: Contents list for Inverse Problems, vol. 27, issues 10-11
From: Stephanie Kent <Stephanie.Kent@iop.org>
Date: Mon, 17 Oct 2011

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An inverse source problem for Helmholtz's equation from the Cauchy data with a single wave number Abdellatif El Badia and Takaaki Nara

Contrast source inversion technique for the reconstruction of 3D inhomogeneous materials loaded in a rectangular waveguide
Emre Kiliç, Funda Akleman and Ali Yapar

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Stefanie Biedermann, Nicolai Bissantz, Holger Dette and Edmund Jones

A Bayesian approach to multiscale inverse problems using the sequential Monte Carlo method Jiang Wan and Nicholas Zabaras

A new approach to nonlinear constrained Tikhonov regularization
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The short-wave model for the Camassa--Holm equation: a Riemann--Hilbert approach Anne Boutet de Monvel, Dmitry Shepelsky and Lech Zielinski

Convergence rates for Morozov's discrepancy principle using variational inequalities Stephan W Anzengruber and Ronny Ramlau

Over-relaxation of the fast iterative shrinkage-thresholding algorithm with variable stepsize Masao Yamagishi and Isao Yamada

Reconstruction of the interface between two-layered media using far field measurements Lahcène Chorfi and Patricia Gaitan

Comparison of optimal design methods in inverse problems
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Guillaume Bal and Kui Ren

Optimal geometry toward uniform current density electrodes
Yizhuang Song, Eunjung Lee, Eung Je Woo and Jin Keun Seo

An isospectral problem related to the Dirichlet eigenvalues and the Neumann eigenvalues of a string equation and some related problems
Chao-Liang Shen

Singular value decomposition for the truncated Hilbert transform: part II
A Katsevich

Inverse spectral problem for Jacobi matrices with partial spectral data
Guangsheng Wei and Zhaoying Wei

Convergence rates for total variation regularization of coefficient
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Extrapolation in variable RKHSs with application to the blood glucose
reading V Naumova, S V Pereverzyev and S Sivananthan

Dynamical inverse problem on a metric tree
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Contrast source inversion method applied to relatively high contrast
objects
Paul-André Barrière, Jérôme Idier, Jean-Jacques Laurin
and Yves Goussard

Conditional stability and uniqueness for determining two coefficients in a
hyperbolic-parabolic system Bin Wu and Jijun Liu

Linear convergence rates for Tikhonov regularization with positively
homogeneous functionals Markus Grasmair

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

This issue is available at: <http://iopscience.iop.org/0266-5611/27/10>

Subject: Contents list for Inverse Problems, vol. 27, issue 11, Nov 2011
From: Stephanie Kent <Stephanie.Kent@iop.org>
Date: Fri, 28 Oct 2011

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inocular Telescope: state of the art and open problems
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An adaptive phase space method with application to reflection traveltime
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Eric Chung, Jianliang Qian, Gunther Uhlmann and Hongkai Zhao

Periodic Jacobi operator with finitely supported perturbation on the
half-lattice Alexei Iantchenko and Evgeny Korotyaev

The uniqueness in the inverse problem for transmission eigenvalues for the spherically symmetric variable-speed wave equation
Tuncay Aktosun, Drossos Gintides and Vassilis G Papanicolaou

Uniqueness of an inverse problem with single measurement data generated by a plane wave in partial finite differences
Michael V Klibanov

Sweep data of electrical impedance tomography
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Solving a linear conservation law subject to initial and final conditions
Olivier Besson and Jérôme Pousin

A regularized Newton method for locating thin tubular conductivity inhomogeneities
Roland Griesmaier and Nuutti Hyvönen

A Bayesian approach to the detection of small low emission sources
Xiaolei Xun, Bani Mallick, Raymond J Carroll and Peter Kuchment

Regularization of statistical inverse problems and the Bakushinskiĭ veto
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Real-time reconstruction of time-varying point sources in a three-dimensional scalar wave equation
Takashi Ohe, Hirokazu Inui and Kohzaburo Ohnaka

Multi-energy CT based on a prior rank, intensity and sparsity model (PRISM)
Hao Gao, Hengyong Yu, Stanley Osher and Ge Wang

Reconstruction of missing data in social networks based on temporal patterns of interactions
Alexey Stomakhin, Martin B Short and Andrea L Bertozzi

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

This issue is available at: <http://iopscience.iop.org/0266-5611/27/11x>
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Today's Editors:

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

Today's Topics:

Conference on Inverse Problems in Honor of Gunther Uhlmann
Symposium: 2012 Inverse Problems Symposium
Workshop: Inverse Problems and Numerical Methods in Applications
Summer School: Computational Methods for Inverse Problems in Imaging
Faculty Position: Computational Imaging Sciences
Postdoc Position: Multidimensional Coefficient Inverse Problems
Postdoc/PhD Positions: Research Group K.U. Leuven ESAT-SCD
Book: Practical Application of Optimal Control Theory
Table of Contents: Journal of Inverse and Ill-Posed Problems
Table of Contents: Inverse Problems and Imaging

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

Subject: A conference on inverse problems in honor of Gunther Uhlmann
From: Plamen Stefanov
Date: 11/13/2011

A conference on inverse problems in honor of Gunther Uhlmann at the
University of California, Irvine, June 18-22, 2012
<http://www.math.purdue.edu/~stefanov/gunther60/>

This conference will emphasize microlocal and geometric methods in
Inverse Problems, and will include talks on both theory and
applications. It is an occasion to recognize and honor Gunther Uhlmann
for his contributions to the field and to the lives of the many
students, post-docs, collaborators and colleagues he has worked with
throughout his illustrious career. There will be about 25 plenary and
40 invited talks. There is no registration fee to participate in the
conference, with or without a talk.

The organizers expect to get funding from NSF. Most of the funds will
be directed to graduate students, pot-docs and junior
researchers. Applications will be accepted online after and if the NSF
confirms the award. Applications from underrepresented groups are
encouraged.

Thank you,

Plamen Stefanov
Department of Mathematics
Purdue University
West Lafayette, IN 47907

Subject: IPS 2012
From: "Dolan, Kirk" <dolank@msu.edu>
Date: 10/31/2011

This is the announcement of the 2012 Inverse Problems Symposium that will be held June 10-12 at Michigan State University Kellogg Center. Please mark this time in your calendars. This symposium is the 25th in the series of national and international meetings on Inverse Problems that were initiated at MSU in 1988 by Dr. James Beck. The last symposia were held at MSU and U. Central Florida in 2010 and 2011, respectively. The 2012 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 actively seeking session organizers, so please let us know if you are interested.

The overall schedule will be similar to that in 2010:

Sunday June 10: 15:30-17:30 James Beck, tutorial on the inverse heat conduction problem (IHCP)

Evening: Informal dinner on our own

Monday, June 11: 8:00-17:00 Oral and poster presentations, Lunch provided

19:00 Symposium Banquet -- Dr. Satish Udpa, University Distinguished Professor and Dean, MSU College of Engineering, speaker

Tuesday, June 12: 8:00-17:00 Oral presentations, Lunch provided

17:00 Finish

The registration fee \$150/\$100 regular/student covers Monday/Tue continental breakfast, lunch, breaks, Monday banquet, and CD.

We are interested in a wide range of topics in engineering, agriculture, natural sciences, mathematics, statistics, etc. A written paper is not required and the papers will not be subject to copyright. The abstracts should be submitted before January 30, 2012. The program is being developed. On-line registration and submission will begin in mid-November. The website is up and running:

www.inverseproblems2012.org

Best regards,

Kirk Dolan (Conference Chairperson) and Jim Beck

Submitted by: Kirk Dolan, Associate Professor
Department of Food Science & Human Nutrition
Department of Biosystems & Agricultural Engineering
135 Trout Food Science Building
Michigan State University

Subject: Inverse problems and numerical methods in applications, Bremen, March 8-9 2012
From: Kim Knudsen <K.Knudsen@mat.dtu.dk>
Date: 11/8/2011

With great pleasure we announce the workshop on "Inverse problems and numerical methods in applications" at the Institut für Werkstofftechnik, Bremen on March 8-9, 2012.

The aim of this workshop is to bring together researchers working on different aspects of inverse problems from theory to computations and real-life applications, and through presentations and discussions create an inspiring atmosphere for mutual benefits.

Further details can be found on <http://www.scattport.org/index.php/conferences-menu/488-workshop-inverse-problems-2012>.

Researchers are invited to sign up for the workshop and submit an abstract for a presentation before February 1, 2012.

Best regards,
Mirza Karamehmedovic'

Subject: Summer School on Computational Methods for Inverse Problems
in Imaging
From: Tanja Tarvainen <tanja.tarvainen@uef.fi>
Date: 11/17/2011

The summer school on computational methods for inverse problems in imaging is held at University of Eastern Finland, Kuopio campus, on June 11 - 15, 2012. The school is aimed at international graduate students and postdoctoral researchers in the fields of mathematics, physics or engineering with an interest towards inverse problems.

The school is arranged by the Academy of Finland Doctoral Programs in Inverse Problems and Computational Sciences (FICS) and it's part of the activity of the Finnish Centre of Excellence in Inverse Problems Research.

More information from the web site:
physics.uku.fi/inverse/SummerSchool2012.

Submitted by: Tanja Tarvainen, Ph.D., Academy research fellow,

Department of Applied Physics, University of Eastern Finland
P.O. Box 1627 70211 Kuopio, Finland
email: tanja.tarvainen@uef.fi
phone: +358 40 355 2310 fax: +358 17 162 585

Subject: Faculty Position in Computational Imaging at Emory University
From: James Nagy <nagy@mathcs.emory.edu>
Date: 11/16/2011

Faculty Position in Computational Imaging at Emory University

The Departments of Radiology and Mathematics & Computer Science at Emory University jointly invite applications for a tenure-track faculty position in Computational Imaging Sciences, broadly defined. Appointments are expected to be at the Assistant Professor level, but outstanding senior candidates will also be considered. Applicants must demonstrate exceptional research ability, and have either an MD or a PhD in Mathematics, Computer Science, Medical Physics, Biomedical Engineering or a closely related field. Applicants should also have strong records, or promise, as undergraduate and graduate teachers. Ideal candidates will have interdisciplinary interests spanning mathematics, computation and imaging, and will be jointly appointed across Radiology and MathCS.

Applications consisting of a CV, research and teaching statements, and three letters of recommendation directly from recommenders should be sent via email to: cis@mathcs.emory.edu.

Informal inquiries are also invited by email. Screening starts December 1, 2011. Applications received by December 31, 2011, will receive a full review. Please note that appointments are subject to final funding approval. Emory University is an Equal Opportunity/Affirmative Action employer. Women and underrepresented minorities are encouraged to apply.

James Nagy
Chair of CIS Search Committee
nagy@mathcs.emory.edu

Subject: postdoctoral position announcement
From: "Klibanov, Michael" <mklibanv@uncc.edu>
Date: 11/16/2011

The Department of Mathematics and Statistics of University of North Carolina at Charlotte has an open position of a postdoctoral research associate on a project of a grant from the US Army Research Office. Principal Investigator of this grant is Professor Michael V. Klibanov. The successful candidate will work on that project under the supervision of Professor Klibanov. The effort will combine analytical and numerical studies of approximately globally convergent numerical methods for Multidimensional Coefficient Inverse Problems

with time resolved data resulting from either a single position of the point source or a single direction of the incident plane wave.

Numerical studies will take about 70% of the effort with the rest of about 30% of analytical effort. Knowledge of numerical methods for PDEs as well as computational experience are required. Knowledge of ill-posed/inverse problems is a plus. Programming in C++. The total time of appointment will be up to September 2014. Duration of the initial appointment is negotiable and will be from six months up to October 2012. Extensions of the appointment are possible and will depend on the satisfactory performance.

Interested candidates are requested to send their CV and a few publications/preprints of their choice to Professor Michael V. Klibanov at mklibanov@uncc.edu. Please also supply names of three people who are willing to submit letters of recommendation about your research strength on your behalf.

Subject: PhD and Postdoc positions K.U. Leuven, ESAT-SCD
From: Johan Suykens <Johan.Suykens@esat.kuleuven.be>
Date: 11/22/2011

The research group K.U. Leuven ESAT-SCD is currently offering new PhD positions (4-years of PhD study) and Postdoc positions (1 year, extendable) within the framework of the ERC Advanced Grant A-DATADRIVE-B (PI: Johan Suykens)
<http://www.kuleuven.be/research/erc/suykens.html>.

Different research positions (PhD/postdoc) are oriented towards

- 1- Prior knowledge incorporation
- 2- Kernels and tensors
- 3- Modelling structured dynamical systems
- 4- Sparsity
- 5- Optimization algorithms
- 6- Core models and mathematical foundations
- 7- Next generation software tool

The research group ESAT-SCD <http://www.esat.kuleuven.be/scd/> at the university K.U. Leuven Belgium provides an excellent research environment being active in the broad area of mathematical engineering, including systems and control theory, neural networks and machine learning, nonlinear systems and complex networks, optimization, signal processing, bioinformatics and biomedicine.

The research will be conducted under the supervision of Prof. Johan Suykens. Interested candidates having a solid mathematical background and master degree can apply for these positions by sending their CV and motivation letter to johan.suykens@esat.kuleuven.be. For further information on these positions you may contact johan.suykens@esat.kuleuven.be.

Subject: "Practical Application of Optimal Control Theory" -monograph
From: QUAN-FANG WANG <quanfangwang@yahoo.co.jp>
Date: 11/14/2011

Monograph: Practical Application of Optimal Control Theory:
computational approach
Author: Quan-Fang Wang

Blurb/shorttext: This monograph presented recent years cutting-edge research papers on applied mathematics and its related fields, such as computer science, physics, chemistry and so forth. Optimal control theory had been applied to neural networks, quantum systems (e.g. Klein-Gordon-Schrodinger equation, Klein-Gordon-Maxwell equation, meson exchange effect, nuclear reaction, etc) as well as inverse problems. Especially, the corresponding computational approach is adequately executed together with resultant theoretical conclusions for interpreting each other. The inherent connection with realistic issues would become a promising direction in future insight. It would be quite interesting to develop the interdisciplinary research to a wide class areas.

- * Hardcover: 216 pages
- * Publisher: LAMBERT Academic Publishing, (Nov. 11, 2011)
- * Language: English
- * ISBN-13: 978-3-8465-5464-7
- * ISBN-10: 3846554642
- * EAN: 9783846554647
- * <https://www.lap-publishing.com/catalog/details/store/gb/book/978-3-8465-5464-7/practical-application-of-optimal-control-theory>
- * <https://www.morebooks.de/store/gb/book/practical-application-of-optimal-control-theory/isbn/978-3-8465-5464-7>

With best regards,
Quan-Fang Wang

Subject: J. of Inverse and Ill-posed Problems Vol. 19, No. 4 & 5, Nov 2011
From: "reference-global@degruyter.com" <reference-global@degruyter.com>
Date: Fri, 11 Nov 2011

J. Inverse and Ill-posed Problems Nov 2011 Vol. 19, No. 4-5
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to analytical ultracentrifugation Martin Ehler

Reconstruction of initial Tsunami waveforms by a truncated SVD method
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Uniqueness theorems from partial information of the potential on a graph
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On the approximations of derivatives of integrated semigroups. II
Miao Li, Vladimir Morozov, and Sergey Piskarev

Singular value decomposition and its application to numerical inversion
for ray transforms in 2D vector tomography
Evgeny Y. Derevtsov, Anton V. Efimov, Alfred K. Louis, Thomas Schuster

Uniqueness in inverse scattering of elastic waves by three-dimensional
polyhedral diffraction gratings Johannes Elschner and Guanghui Hu

Asymptotic inversion formulas in 3D vector field tomography for different
geometries Sergey G. Kazantsev and Thomas Schuster

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Enhancing linear regularization to treat large noise
Peter Mathe and Ulrich Tautenhahn

On reconstruction of Lamé coefficients from partial Cauchy data
Oleg Yu. Imanuvilov and Masahiro Yamamoto

Subject: Inverse Problems and Imaging Vol. 5, No. 4, Dec 2011
From: Liwei Ning <newsletter@aimsciences.org>
Date: Thu, 17 Nov 2011

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Stability estimates for the anisotropic wave equation from the
Dirichlet-to-Neumann map
Mourad Bellassoued and David Dos Santos Ferreira

Recovery of the heat coefficient by two measurements
Amin Boumenir and Vu Kim Tuan

Uniqueness in inverse transmission scattering problems for multilayered
obstacles Johannes Elschner and Guanghui Hu

A comparison of dictionary based approaches to inpainting and denoising
with an emphasis to independent component analysis learned dictionaries
Marko Filipovic and Ivica Kopriva

Spectral shift functions in the fixed energy inverse scattering
Miklos Horvath

Reconstructions from boundary measurements on admissible manifolds
Carlos E. Kenig, Mikko Salo and Gunther Uhlmann

Computing the fibre orientation from Radon data using local Radon
transform Michael Krause, Jan Marcel Hausherr and Walter Krenkel

Cumulative wavefront reconstructor for the Shack-Hartmann sensor
Mariya Zhariy, Andreas Neubauer, Matthias Rosensteiner and Ronny Ramlau
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