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Today's Editor:

Patricia K. Lamm, Michigan State University

Today's Topics:

New Deadline: Int'l Symposium on Inverse Problems, Design, Optimization
Call for Papers: Inverse Problems and Optimization in Heat Transfer
Conference: Mathematical Modelling and Analysis
PhD Student Position: Inverse Problems in Elasticity
Table of Contents: Inverse Problems
Table of Contents: Journal of Inverse and Ill-Posed Problems
Table of Contents: Journal of Applied Functional Analysis

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: Olivier Fudym <fudym@mines-albi.fr>
Date: Mon, 14 Jan 2013
Subject: IPDO-2013 Special announcement

Dear Colleagues,

Abstract submission for IPDO-2013 is still possible during the next few days
(beyond the stated deadline given below)!

SPECIAL ANNOUNCEMENT

Download the Last Call for Abstracts
<http://ipdo2013.congres-scientifique.com>

Objectives

IPDO Symposium's main objectives are to bring the three communities of researchers in the fields of inverse problems, design theory, and optimization together and provide a common forum for presenting different applications, problems, and solution strategy concepts. Hence, IPDO Symposium is a privileged place for scientific exchanges relating the measurement and theory approaches through the use of suitable optimization algorithms.

Abstracts and papers submission

Please submit a two-page abstract in pdf format via the symposium website (download Template)

IMPORTANT DATES **** see the note at the beginning of this message ****

January 31, 2012 deadline for submission of two-page abstracts

February 8, 2013 informing about acceptability of abstracts

April 15, 2013 deadline for submission of full eight-page papers

May 15, 2013 deadline for early registration

Accommodation

Low cost lodging opportunities in the student houses on the campus are proposed for up to 25 PhD students. Total cost is 100€ per student from Monday to Saturday including 5 nights and 4 breakfasts. Reservations of these studio apartments (one student per studio apartment) should be requested during online registration and will be attributed in the order of online registration.

Plenary and keynote lectures

Prof. Alemdar Hasanoglu (Hasanov) - Izmir University, Turkey

"Inverse source problems related to vibrating cantilevered beam, based on boundary or/and final data measurements"

Prof. Alfred K. Louis - Saarland University, Saarbrücken, Germany

"Feature Reconstruction in Tomography"

Prof. Carlo Poloni - ESTECO, Trieste, Italy

"Inverse Problems and Design Optimization: a multidisciplinary industrial perspective"

Prof. Eduardo Souza de Cursi - INSA - Rouen, France

"Uncertainty Quantification in Numerical Optimization"

Prof. I. Elishakof - Florida Atlantic University, U.S.A.

"Recent developments in mechanics of structures with uncertainties"

Prof. Patrick Thiran - EPFL, Lausanne, Switzerland

"Locating the Source of Diffusion in Large-Scale Networks"

Prof. Vassili Toropov - University of Leeds, UK

"Aerospace applications of multidisciplinary optimization"

Contact information

Olivier Fudym

Tel. +33 (0) 5 63493024

e-mail: olivier.fudym@mines-albi.fr

From: "Woodbury, Keith" <keith.woodbury@ua.edu>

Date: Mon, 14 Jan 2013 08:02:31 -0600

Subject: Call for papers: Inverse Problems and Optimization in Heat Transfer

ASME 2013 International Mechanical Engineering Congress & Exposition
November 15-21, Manchester Grand Hyatt, San Diego CA

Call for Papers: Inverse Problems and Optimization in Heat Transfer

The 2013 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/Congress2013/>
under Track 9 (Heat Transfer and Thermal Engineering) and Topic 9-17 (Computational Heat Transfer).
Please indicate "Inverse Analysis and Optimization" prominently on the abstract.

Publication Schedule:

Abstract Deadline: February 7th, 2013

First Draft: April 15th, 2013

Final Draft: July 29th, 2013

Session Organizers:

Keith Woodbury, University of Alabama, keith.woodbury@ua.edu

Kyle Daun, University of Waterloo, kjdaun@uwaterloo.ca

From: Uno Hamarik <Uno.Hamarik@ut.ee>

Date: Mon, 28 Jan 2013

Subject: Conference: Mathematical modelling and analysis

The 18th International Conference "Mathematical Modelling and Analysis"
(MMA2013) and the 4th International Conference "Approximation Methods and
Orthogonal Expansions (AMOE2013)

May 27 - 30, 2013, Tartu, Estonia

<http://www.ut.ee/mma-amoe2013/>

The conference is dedicated to the 75th birthday of Professor Gennadi

Vainikko

Conference topics:

- * Modelling and Analysis of Problems of Mathematical Physics and Engineering
- * Approximation Methods for Differential, Integral and Operator Equations
- * Orthogonal Expansions, Wavelets and Splines
- * Singular Problems
- * Inverse and Ill-Posed Problems

Confirmed plenary speakers:

Hermann Brunner (Hong Kong Baptist University, China)

Raimondas Ciegis (Vilnius Gediminas Technical Univ, Lithuania)

Zdzislaw Jackiewicz (Arizona State University, USA)

Barbara Kaltenbacher (University of Klagenfurt, Austria)

Rainer Kress (University of Göttingen, Germany)

M. Zuhair Nashed (University of Central Florida, USA)

Helmut Neunzert (Fraunhofer Institute, Kaiserslautern, Germany)

Sergei Pereverzyev (RICAM, Linz, Austria)

Ian H. Sloan (University of New South Wales, Sydney, Australia)

Gennadi Vainikko (University of Tartu, Estonia)

Deadlines:

Registration and abstract submission: March 15, 2013

Notification of acceptance: March 31, 2013

From: "Prof. Dr. Thomas Schuster" <thomas.schuster@num.uni-sb.de>
Date: Mon, 28 Jan 2013
Subject: Position advertisement

Please see below the advertisement for an open position for a PhD student in my working group (research subject: inverse problems in elasticity).

<http://www.math.uni-sb.de/ag/schuster/joomla/index.php/de/stellenausschreibungen>

Submitted by: Prof. Dr. Thomas Schuster
Professur für Numerische Mathematik
Universität des Saarlandes / FR 6.1 Mathematik
Campus, Geb. E2 4 / D-66123 Saarbrücken
Tel.: +49 (0)681 302 57425 FAX: +49 (0)681 302 3046
email: thomas.schuster@num.uni-sb.de
web: <http://www.math.uni-sb.de/ag/schuster/>

From: <custserv@iop.org>

Date: Fri, 28 Dec 2012

Subject: Inverse Problems, Volume 29, Number 1, January 2013

Inverse Problems January 2013 Vol. 29, Number 1
Table of Contents

Large-scale parameter extraction in electrocardiology models through Born approximation Yuan He and David E Keyes

Summability kernels for circular and spherical mean data
Marcus Ansorg, Frank Filbir, W R Madych and Ruben Seyfried

On piecewise constant level-set (PCLS) methods for the identification of discontinuous parameters in ill-posed problems
A De Cezaro, A Leitão and X-C Tai

Characterizing kernels of operators related to thin-plate magnetizations via generalizations of Hodge decompositions
L Baratchart, D P Hardin, E A Lima, E B Saff and B P Weiss

Integral equation methods for the inverse obstacle problem with generalized impedance boundary condition Fioralba Cakoni and Rainer Kress

An inverse random source problem in quantifying the elastic modulus of nanomaterials Gang Bao and Xiang Xu

Inverse dipole source problem for time-harmonic Maxwell equations: algebraic algorithm and Hölder stability Abdellatif El Badia and Takaaki Nara

Generalized sampling: extension to frames and inverse and ill-posed problems Ben Adcock, Anders C Hansen, Evelyn Herrholz and Gerd Teschke

Some inverse problems arising from elastic scattering by rigid obstacles Guanghui Hu, Andreas Kirsch and Mourad Sini

Corrigenda

Corrigendum: Bounds on positive interior transmission eigenvalues
E Lakshtanov and B Vainberg

Corrigendum: Linear sampling method for identifying cavities in a heat conductor Horst Heck, Gen Nakamura and Haibing Wang

From: "noreply@degryter.com" <noreply@degryter.com>

Date: Thu, 13 Dec 2012 23:07:24

Subject: Table of Contents 'Journal of Inverse and Ill-Posed Problems'

Journal of Inverse and Ill-Posed Problems Dec. 2012 Vol. 20, Issue 5-6
Table of Contents

Extra-optimal methods for solving ill-posed problems
Leonov, Alexander S.

Regularization for ill-posed parabolic evolution problems
Fury, Matthew A.

Satisfier function in Ritz–Galerkin method for the identification of a time-dependent diffusivity
Yousefi, S. A. / Lesnic, Daniel / Barikbin, Zahra

On some identification problem for source function to one semievolutionary system
Belov, Yuri Y. / Kopylova, Vera G.

Regularization of backward parabolic equations in Banach spaces
Hào, Dinh Nho / Duc, Nguyen Van

On the existence of global saturation for spectral regularization methods with optimal qualification
Mazzieri, Gisela L. / Spies, Ruben D. / Temperini, Karina G.

Inverse determination of unsteady temperatures and heat fluxes on inaccessible boundaries Dennis,
Brian H. / Dulikravich, George S.

Well-posedness of the Cauchy problem to a nonlinear magnetoelastic system in 1-D periodic media
Neves, Wladimir / Priimenko, Viatcheslav / Vishnevskii, Mikhail

A family of rules for the choice of the regularization parameter in the Lavrentiev method in the case of
rough estimate of the noise level of the data
Hämarik, Uno / Palm, Reimo / Raus, Toomas

Inverse problems for second-order differential pencils with Dirichlet boundary conditions Buterin,
Sergey A. / Yurko, Vjacheslav A.

From: "George A Anastassiou (ganastss)" <ganastss@gmail.com>
Date: Thu, 24 Jan 2013 11:14:23 -0600
Subject: Contents, Journal of Applied Functional Analysis

Please see the Table of Contents for the Journal of Applied Functional Analysis, Vol. 8, 2013:

<http://www.eudoxuspress.com/images/TOC-JAFA-2013.pdf>
----- end -----

Today's Editor:

Patricia K. Lamm, Michigan State University

Today's Topics:

Conference: Computational Analysis of Inverse Problems and PDEs

Workshop: Statistical and Computational Methods for Inverse Problems

Symposium: Inverse Problems Symposium 2013 Abstract Deadline Extended

Positions Available in Inverse Problems in Statistics, Computer Science

Position: Assistant Professor in Computational Reconstruction Algorithms

Journal Compilation: Inverse Problems Highlights Collection

Table of Contents: Inverse Problems

Table of Contents: Journal of Inverse and Ill-Posed Problems

Table of Contents: Nonlinear Analysis: Modelling and Control

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

From: Qiyu Sun <Qiyu.Sun@ucf.edu>

Subject: Conference "Computational Analysis of Inverse Problems and Partial Differential Equations" at Orlando, May 9—11, 2013

Date: 2/2/2013

The international conference "Computational Analysis of Inverse Problems and Partial Differential Equations", dedicated to John Cannon and Zuhair Nashed, will be held in May 9—11, 2013 at the University of Central Florida, Orlando, Florida, USA.

You are cordially invited to participate in the conference. The theme of the conference is on computation and analysis of inverse problems and partial differential equations. The aim of the conference is to bring together top experts from USA and overseas to disseminate the most recent progress on Inverse Problems and PDE.

The organizers are Yanping Lin, Piotr Mikusinski, Yuanwei Qi, Qiyu Sun, Alexandru Tamasan, Hongming Yin and Jiongmin Yong.

Registration, title and abstracts of your presentation should be sent to Qiyu Sun (qiyu.sun@ucf.edu). The deadline for the registration is the last weekend of March (March 30 2013), and the deadline for title and abstract is the first weekend of April (April 6, 2013). However, it will help greatly with our planning if you can let us know in advance of that deadline if you plan to come.

Travel support is available, pending the funding approval. Priority is given to students, postdocs and young researchers. Participants who wish to apply for travel support should submit your application with your registration by March 30, 2013.

For further information, please visit the conference webpage:
<http://math.cos.ucf.edu/~inverse>

From: Marcos Aurelio Capistran <marcos@cimat.mx>
Subject: Workshop on stat. and comp. methods for inverse problems,
Guanajuato, Mexico, August 2013
Date: 2/5/2013

Call for abstracts for a workshop on statistical and computational methods for inverse problems arising in ordinary, stochastic and partial differential equations. The meeting will be held at CIMAT, in Guanajuato, Mexico, August 1st-3rd of 2013. The workshop is a satellite conference to the Congress of the Americas. It is an activity of the international year of statistics.

Please visit the website for further information:

<http://www.cimat.mx/Eventos/SCMIP13/>

Submitted by: Marcos Aurelio Capistrán Ocampo
CIMAT / A. P. 402 / Jalisco S/N, Valenciana
Guanajuato, GTO 36240
Tel: (473) 73 2 71 55 Ext. 49640

From: Jon Woolley <j.w.woolley@gmail.com>
Subject: Abstract Deadline Extended: Inverse Problems Symposium 2013
Date: 2/11/2013

2013 Inverse Problems Symposium - Abstract Deadline Extended

Dear Inverse Problems Researchers and Instructors,

The abstract deadline has been extended for the 2013 Inverse Problems Symposium that will be held June 9-11 in Huntsville, Alabama. This symposium is the 26th 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 the University of Central Florida and Michigan State University in 2011 and 2012, respectively. The 2013 symposium in Huntsville, Alabama 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 for 2013 will be similar to that in 2012:

Sunday June 9:

15:00-17:00 Dr. Cara Brooks, tutorial on local regularization methods for solving inverse problems
Evening: Informal dinner on our own

Monday, June 10:

8:00-17:00 Oral and Poster Presentations. Breakfast and lunch provided.
19:00 Symposium Banquet at the U.S. Space and Rocket Center

Tuesday, June 11:

8:00-17:00 Oral presentations. Breakfast and lunch provided.

17:00 Conclusion

Early registration is available through April 30, 2013. The early registration fee is \$200 for regular registration and \$150 for student registration. After April 30, the registration fee will go up to \$250/\$175 regular/student. The registration fee covers Monday/Tuesday 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 March 15, 2013. The program is being developed. On-line registration and submission will begin by December 1, 2012. The website can be found at this address:

www.inverseproblems2013.org

All the best,
Jon Woolley

From: Simon ARRIDGE <S.Arridge@cs.ucl.ac.uk>

Subject: Positions in Inverse Problems

Date: 2/5/2013

Positions available:

Inverse Problems in Statistics :

https://atsv7.wcn.co.uk/search_engine/jobs.cgi?owner=5041178&ownertype=fair&jcode=1302510

Inverse Problems in Computer Science:

https://atsv7.wcn.co.uk/search_engine/jobs.cgi?owner=5041178&ownertype=fair&jcode=1307990

Best Regards,

Simon R. Arridge, PhD., F.InstP. University College London (UCL)
Professor of Image Processing Department of Computer Science
Visiting Professor of Mathematics Department of Mathematics
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WWW home page - <http://www.cs.ucl.ac.uk/staff/S.Arridge>

From: Kim Knudsen <kiknu@dtu.dk>

Subject: Assistant Professor in Computational Reconstruction Algorithms,
Technical Univ. of Denmark

Date: 2/18/2013 3:19 AM

DTU Physics and DTU Compute at the Technical University of Denmark invite applications for a position as Assistant Professor in Computational Reconstruction Algorithms. The position is available from June 1, 2013. The position is shared between the two departments and is associated with a newly established 3D Imaging Initiative at DTU. The assistant professor will be part of a team that develops

computational reconstruction algorithms in multi-dimensional space for materials characterization, using data from large-scale measurement facilities such as synchrotrons, neutron sources and free electron lasers. Key elements of this work are the formulation of the underlying mathematical models and the utilization of large data sets for immediate applicability in materials physics studies. The Assistant Professor is expected to take part in teaching activities at both departments.

The candidate must demonstrate a strong background in mathematical/physical modeling and scientific computing, and must be able to work across the disciplines. Good communication skills are required. For more details, see: <http://www.job.dtu.dk/?guid=9e41c50f-290c-4310-b921-f093600186b9>

Applications must be written in English and submitted online via the above home page by March 31, 2013.

More Information can be obtained from

Professor Per Christian Hansen, DTU Compute; pch@imm.dtu.dk
Senior Researcher Søren Schmidt, DTU physics; ssch@fysik.dtu.dk

Best wishes,
Kim

Submitted by: Kim Knudsen, Lektor, DTU Compute
Danmarks Tekniske Universitet
http://www.dtu.dk/images/DTU_email_logo_01.gif
Institut for Matematik og Computer Science
Matematiktorvet
Bygning 303 B / 2800 Kgs. Lyngby
Direkte telefon 45253026 / k.knudsen@mat.dtu.dk
www.mat.dtu.dk/

From: Leanne Mullen <Leanne.Mullen@iop.org>
Subject: Inverse Problems Highlights Collection
Date: 2/12/2013

Inverse Problems 2012 Highlights Collection

The Editorial Board have selected their highlights from Inverse Problems in 2012
<http://iopscience.iop.org/0266-5611/page/Highlights%20of%202012>

This is intended not as a list of the 'best' articles, but as an interesting and stimulating reading list. Articles were selected for many reasons, some contain outstanding research and breakthroughs, some may have an especially clear exposition and are beautifully presented, others are instructive, containing results and tools useful to many readers. Whether you are reading these articles for the first time or from renewed interest, we very much hope that you will enjoy reading them.

The journal homepage also features exciting short news stories on recently published papers called Insights see <http://iopscience.iop.org/0266-5611/labtalk/1>.
Further information on how to read, write for or subscribe to Inverse Problems can be found on the homepage <http://iopscience.iop.org/0266-5611> or you can e-mail us at ip@iop.org.

Submitted by: Leanne Mullen

Martin Burger, Jens Flemming, and Bernd Hofmann

Thermoacoustic tomography with an arbitrary elliptic operator
Michael V Klibanov

A contrast source inversion method in the wavelet domain
Maokun Li, Oguz Semerci, and Aria Abubakar

Robust imaging of localized scatterers using the singular value decomposition and l_1 minimization A
Chai, M Moscoso, and G Papanicolaou

On the use of the linear sampling method to identify cracks in elastic waveguides
L Bourgeois and E Lunéville

Corrigendum: The direct and inverse scattering problems for partially coated obstacles Fioralba
Cakoni, David Colton, and Peter Monk

From: "noreply@degruyter.com" <noreply@degruyter.com>
Subject: Table of Contents 'Journal of Inverse and Ill-Posed Problems'
Date: 2/5/2013

Journal of Inverse and Ill-Posed Problems Feb 2013 Volume 21, Issue 1
Table of Contents

Data regularization using Gaussian beams decomposition and sparse norms
Wang, Yanfei / Liu, Peng / Li, Zhenhua / Sun, Tao / Yang, Changchun / Zheng, Qingsheng

Material parameter estimation and hypothesis testing on a 1D viscoelastic stenosis model:
Methodology
Banks, H. Thomas / Hu, Shuhua / Kenz, Zackary R. / Kruse, Carola / Shaw, Simon / Whiteman, John R. /
Brewin, Mark P. / Greenwald, Steve E. / Birch, Malcolm J.

The use of statistical tests to calibrate the normal SABR model
Fatone, Lorella / Mariani, Francesca / Recchioni, Maria Cristina / Zirilli, Francesco

Unique determination of potentials and semilinear terms of semilinear elliptic equations from partial
Cauchy data Imanuvilov, Oleg / Yamamoto, Masahiro

Irregular nonlinear operator equations: Tikhonov's regularization and iterative approximation Vasin,
Vladimir

On a multidimensional integral equation with data supported by low-dimensional analytic manifolds
Kokurin, Mikhail Y.

Inverse problem for elliptic equation in a Banach space with Bitsadze–Samarsky boundary value
conditions Orlovsky, Dmitry G.

Certain problems of synchronization theory
Aisagaliev, Serikbai A. / Kalimoldayev, Maxat N.

From: Romas Baronas <romas.baronas@mif.vu.lt>

Subject: Table of Contents, Nonlinear Analysis: Modelling and Control
Date: 2/2013 7:05 AM

Nonlinear Analysis: Modelling and Control 2013 Volume 18, Number 1
Table of Contents

Linear and nonlinear stability in nuclear reactors with delayed effects, pp. 1-13
Kostas Bucys, Donatas Svitra, Ramune Vilkyte

A coupled common fixed point theorem for a family of mappings
Binayak S. Choudhury, Nikhilesh Metiya, Pradyut Das

Some exact solutions to the generalized Korteweg-de Vries equation and the system of shallow water wave equations Ihsan Timucin Dolapci, Ahmed Yildirim

Optimal management of a renewable resource utilized by a population
Balram Dubey, Atasi Patra

Blow-up of the solution of a nonlinear Schrödinger equation system with periodic boundary conditions
Feliksas Ivanauskas, Gintaras Puriuskis

A novel chaotic system and its topological horseshoe
Chunlai Li, Lei Wu, Hongmin Li, Yaonan Tong

Global attractors for non-linear viscoelastic equation with strong damping
Zhiyong Ma

Stabilizing uncertain steady states of some dynamical systems by means of proportional feedback
Elena Tamaseviciute, Arunas Tamasevicius

Modeling nonlinear stochastic kinetic system and stochastic optimal control of microbial bioconversion process in batch culture
Lei Wang, Enmin Feng, Z. Xiu

Adaptive hybrid function projective synchronization of chaotic systems with fully unknown periodical time-varying parameters Jinsheng Xing

For a paper submission, please refer to <http://www.mii.lt/NA/>
A free on-line edition is available at: <http://www.mii.lt/NA/issues.htm>

Submitted by: Dr. Romas Baronas, Deputy-Editor-in-Chief,
Nonlinear Analysis: Modelling and Control
----- end -----

Today's Editor:

Patricia K. Lamm, Michigan State University

Today's Topics:

Workshop: Electromagnetics, including Inverse Electromagnetic Scattering
Postdoctoral Position: Inverse Problems and Data Assimilation
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: Workshop: Electromagnetics — Modelling, Simulation, Control and Industrial Applications
From: Guanghui Hu <hu@wias-berlin.de>
Date: 3/1/2013

Workshop: "Electromagnetics — Modelling, Simulation, Control and Industrial Applications" at Berlin, Germany, May 13-17, 2013

This workshop (EMSCA) will be held at Weierstrass Institute for Applied Analysis and Stochastics (WIAS), Berlin, during May 13-17, 2013.

It aims to provide an international forum for researchers working on electromagnetics — ranging through mathematical modeling, analytical methods, computational algorithms as well as multi-physics problems. The purpose of the workshop is to strengthen the collaboration link among mathematics, physics and engineering disciplines. The scientific scope and range of EMSCA includes (but is not restricted to):

- Finite and boundary element methods for Maxwell's equations;
- Analytic theories and methods;
- Optimal control and model reduction;
- Multifrequency induction hardening;
- Diffraction optics;
- Direct and inverse electromagnetic scattering problems;
- Electromagnetics in complex and random environments.

The list of invited speakers and registration form can be found at

<http://www.wias-berlin.de/workshops/IFIP-EMSCA2013/>

The call for contributed talks is still open. We look forward to meeting you in Berlin.

Joonas Ilmavirta

Point source identification in nonlinear advection–diffusion–reaction systems

A V Mamonov, and Y-H R Tsai

Corrigendum: On the reconstruction of interfaces using complex geometrical optics solutions for the acoustic case

Mourad Sini, and Kazuki Yoshida

For worldwide visibility and fast publication, publish your papers in IOP Journals. IOP invites you to submit your manuscripts to <http://iopscience.iop.org/>. Submission is quick and easy (please check the details on each journal's home page) and most journals provide referee reports in less than 60 days (median).

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Today's Editor:

Patricia K. Lamm, Michigan State University

Today's Topics:

Position: W2-Professorship in Inverse Problems

Position: Postdoctoral Position in Imaging

Special Issue: Radar Imaging, for Inverse Problems Journal

Table of Contents: Journal of Inverse and Ill-Posed Problems

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: Open position for a W2-professorship (Associate Professor)
 on Inverse Problems at the University of Wuerzburg, Germany
From: Petra Markert-Autsch <petra.markert-automatik@mathematik.uni-wuerzburg.de>
Date: 4/17/2013

The Chair of Scientific Computing at the University of Wuerzburg, Germany would like to announce a W2-professorship (Associate Professor) on Inverse Problems.

This is a permanent position for a Scholar of distinction in the area of scientific computing and inverse problems who complements the existing research profile of mathematics in Wuerzburg and actively participates to collaborative research projects with natural and engineering sciences and medicine.

A detailed description can be found under the following link:

<http://www.mathematik.uni-wuerzburg.de/pdf/W2InvProb-Ausschreibung-1401.pdf>

Submitted by:

Petra Markert-Autsch Sekretariat Lehrstuhl für Mathematik IX / Secretary Chair of Mathematics IX
(Wissenschaftliches Rechnen / Scientific Computing)

Prof. Dr. Alfio Borzi

Campus Hubland Nord / Emil-Fischer-Straße 30

97074 Würzburg, Germany

Tel. (0931) 31-85362 Fax: (0931) 31-81491 petra.markert-automatik@mathematik.uni-wuerzburg.de

www.mathematik.uni-wuerzburg.de/lmath09.html

Lehrstuhl IX SciComp <http://www9.mathematik.uni-wuerzburg.de>

Bürozeiten / Office Times: Mo.-Do. 9⁰⁰ - 14⁰⁰ Uhr

Subject: Postdoc Position, Imaging, University of Liverpool, UK
From: "Chen, Ke" <K.Chen@liverpool.ac.uk>
Date: 5/1/2013

Subject: Postdoc Position, Imaging, University of Liverpool, UK

Applications are invited from outstanding candidates to join the Department of Mathematical Sciences at the University of Liverpool for a three year post-doctoral position.

Candidates should have a PhD in Applied/Computational Mathematics and experience in the area of Numerical Optimisation and PDEs. Knowledge of variational models, convex analysis, imaging modelling and programming would be advantageous. Good written and verbal communication skills and a track record of publication in leading journals are essential.

The consortium of 4 UK Universities (Liverpool, Edinburgh, Durham and Heriot- Watt) was recently awarded a major research grant of 1.3 million by the EPSRC to undertake a multidisciplinary project entitled "A novel diagnostic tool: from structural health monitoring to tissue quality prediction"; three more posts will be advertised.

Further details, including salary and application forms, can be found at

http://www.liv.ac.uk/working/job_vacancies/research/r-582891/

The closing date for applications is May 24th. Informal enquiries can be made to Prof. Ke Chen (k.chen@liv.ac.uk / <http://www.liv.ac.uk/cmit>)

Subject: Inverse Problems: Radar Imaging Special Issue
From: Leanne Mullen <Leanne.Mullen@iop.org>
Date: 4/21/2013

Inverse Problems is excited to announce the publication of the Radar Imaging special issue.

Guest edited by Margaret Cheney and Brett Borden, this issue encompasses a plethora of techniques and research on radar imaging. The papers, prepared by leading researchers in mathematics, physics and engineering, cover target structure and composition, artefact mitigation, and moving targets.

<http://iopscience.iop.org/0266-5611/29/5>

We hope that you enjoy reading the issue and that it will stimulate further research.

Submitted by: Dr Leanne Mullen, Publishing Editor, Inverse Problems
IOP Publishing, Temple Circus, Temple Way, Bristol BS1 6HG
Tel: +44 (0)117 930 1842
E-mail: Leanne.Mullen@iop.org <http://iopscience.iop.org/>

Subject: Journal of Inverse and Ill-Posed Problems
From: "noreply@degryter.com" <noreply@degryter.com>
Date: 4/2/2013

New methods for the localization of discontinuities of the first kind for functions of bounded variation
Ageev, Alexandr L. / Antonova, Tatyana V.

Legendre polynomials as a recommended basis for numerical differentiation in the presence of stochastic white noise
Lu, Shuai / Naumova, Valeriya / Pereverzev, Sergei V.

Inverse boundary value problem for the heat equation with discontinuous coefficients Nakamura, Gen / Sasayama, Satoshi

Severely ill-posed linear parabolic integro-differential problems
Lorenzi, Alfredo

The Levenberg–Marquardt iteration for numerical inversion of the power density operator
Bal, Guillaume / Naetar, Wolf / Scherzer, Otmar / Schotland, John

Unique continuation and continuous dependence results for a severely ill-posed integrodifferential parabolic problem with a memory term in the principal part of the differential operator
Lorenzi, Alfredo / Messina, Francesca

Recent results about the detection of unknown boundaries and inclusions in elastic plates Morassi, Antonino / Rosset, Edi / Vessella, Sergio

Walter de Gruyter GmbH
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Mail: info@deGruyter.com Internet: www.degruyter.com

Subject: Inverse Problems, Volume 29, Number 5, May 2013
From: <custserv@iop.org>
Date: 4/24/2013

Inverse Problems May 2013 Volume 29, Number 5
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Special Issue on Radar Imaging

Radar imaging
Brett Borden and Margaret Cheney

Materials identification synthetic aperture radar: progress toward a realized capability Richard A Albanese and Richard L Medina

Imaging frequency-dependent reflectivity from synthetic-aperture radar
Margaret Cheney

Polarimetric synthetic-aperture inversion for extended targets in clutter
Kaitlyn Voccola, Margaret Cheney, and Birsen Yazici

Autofocus algorithm for synthetic aperture radar imaging with large curvilinear apertures

E Bleszynski, M Bleszynski, and T Jaroszewicz

Reduction of ionospheric distortions for spaceborne synthetic aperture radar with the help of image registration

Mikhail Gilman, Erick Smith, and Semyon Tsynkov

A multiscale approach to a synthetic aperture radar in dispersive random media Josselin Garnier and Knut Sølna

Resolution optimization with irregularly sampled Fourier data

Matthew Ferrara, Jason T Parker, and Margaret Cheney

Compressive radar with off-grid targets: a perturbation approach

Albert Fannjiang and Hsiao-Chieh Tseng

Multichannel synthetic aperture radar signatures and imaging of a moving target Jen King Jao and Ali Yegulalp

A 2D wavenumber domain phase model for ground moving vehicles in synthetic aperture radar imagery

Nicholas Marechal, Richard Dickinson, and Grant Karamyan

Motion estimation and imaging of complex scenes with synthetic aperture radar Liliana Borcea, Thomas Callaghan, and George Papanicolaou

Imaging moving objects from multiply scattered waves and multiple sensors

Analee Miranda and Margaret Cheney

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Subject: Table of Contents, Nonlinear Analysis: Modelling and Control

From: Romas Baronas <romas.baronas@mif.vu.lt>

Date: 4/29/2013

Nonlinear Analysis: Modelling and Control 2012 Vol. 17, No. 2

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Large deviations for weighted random sums

Aurelija Kasparaviciute and Leonas Saulis

A new family of fourth-order methods for multiple roots of nonlinear equations Baoqing Liu and Xiaojian Zhou

Soliton solution and conservation laws of the Zakharov equation in plasmas with power law nonlinearity

Richard Morris, Abdul Hamid Kara, and Anjan Biswas

Nonlinear generalized cyclic contractions in complete G-metric spaces and applications to integral equations

Hemant Kumar Nashine and Zoran Kadelburg

Detection of multiple changes in mean by sparse parameter estimation

Jiri Neubauer and Vitezslav Vesely

A predator-prey model with disease in prey

Md. Sabiar Rahman and Santabrata Chakravarty

Stability and absorbing set of parabolic chemotaxis model of Escherichia coli Salvatore Rionero and Maria Vitiello

Phenomenological model of bacterial aerotaxis with a negative feedback

Vladas Skakauskas, Pranas Katauskis, Remigijus Šimkus, and Feliksas Ivanauskas

Global dynamics of a delayed epidemic model with latency and relapse

Rui Xu

Submitted by: Dr. Romas Baronas, Deputy-Editor-in-Chief,

Nonlinear Analysis: Modelling and Control.

----- end ----- .

Today's Editor:

Patricia K. Lamm, Michigan State University

Today's Topics:

Franco-German Summer School on Inverse Problems, PDEs
Workshop on Numerical Analysis and Inverse Problems
Update on Int'l Symposium on Inverse Problems, Design, Optimization
SIAM Conference on Imaging Science 2014
International Meeting on Inverse Scattering Honoring David Colton
New Book: Advances in Applied Mathematics and Approximation Theory
Table of Contents: Inverse Problems and Imaging
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: Announcement of a summer school on inverse problems
From: Armin Lechleiter <lechleiter@math.uni-bremen.de>
Date: 5/2/2013

Franco-German Summer School on Inverse Problems and PDEs
University of Bremen, Germany, October 7-11, 2013

Dear Colleagues,

The Franco-German Summer School on Inverse Problems and PDEs takes place from October 7-11 at the University of Bremen, Germany. This event is generously supported by the Franco-German University, the French Embassy in Germany, the University of Bremen and INRIA Saclay.

The summer school considers recent advances in analytical and numerical treatments of inverse problems for PDEs. A particular emphasis will be put on non-linear, qualitative and stochastic inversion methods. The courses are designed for advanced Master students, PhD students and PostDocs in mathematics. A limited number of participants will also have the opportunity to present their research in dedicated sessions.

More information on the summer school, a detailed program, and an online registration for this event can be found at the web site

<http://www.math.uni-bremen.de/zetem/ip-school2013>

We would be pleased to welcome you or your students in October 2013 in Bremen!

Best wishes,

Housseem Haddar and Armin Lechleiter
Organizers of the summer school

Subject: Workshop on Numerical Analysis and Inverse Problems
From: Jiguang Sun <jiguangs@mtu.edu>
Date: 5/2/2013 3:34 PM

Copper Country Workshop on Numerical Analysis and Inverse Problems

Michigan Technological University, Houghton, Michigan
Aug. 12-14, 2013
http://www.math.mtu.edu/~jiguangs/Homepage_of_Jiguang_Sun/NAIS.html

The workshop intends to bring leading researchers to discuss the recent developments on numerical analysis, scientific computing, and inverse problems. It also seeks to build collaboration among the participants.

Contributed presentations are invited in areas consistent with the conference themes, which include but are not limited to inverse scattering problem, finite element method, discontinuous Galerkin method, imaging, regularization schemes, etc. Those interested in giving a contributed talk must submit a title and a brief abstract not to exceed one page by email to jiguangs@mtu.edu.

Abstract submission deadline: June 15, 2013
Notification of acceptance: June 30, 2013

Michigan Technological University is located in Houghton, Michigan. Houghton's summer climate tends to be especially pleasant, as hot temperatures are often moderated by the cool waters of the nearby Lake Superior. It is definitely one of the best places to stay in August.

Subject: International Conference IPDO 2013 - Only 10 days left to register with preferential rate !
From: "ipdo2013@congres-scientifique.com" <ipdo2013@congres-scientifique.com>
Date: 5/21/2013

Good afternoon,

If you haven't registered yet, we remind you that there are only 10 days left to benefit from the preferential rate to register for the IPDO 2013 Conference which will be held on June 26-28 2013, in Albi, France.

Save 50€ by registering before May, 31st 2013!

When planning your trip, take into consideration that by Thursday 27th of June we will have a social dinner at the beautiful Mauriac castle <http://www.chateaudemauriac.com> which is a XIVth century fortress.

Mr Carcaillet, Airbus, Head of Strategic Marketing, will give a lecture “>From A3XX to A380 – and from entry into service to 5 years later: design, achievements and perspectives” during the social dinner.

A special visit of the Airbus A380 final assembly line (FAL) in Toulouse is planned for 30 persons by Friday 28 at 4 PM for one hour duration. Transportation from Albi to Toulouse will be provided, hence you could plan your return trip after this visit.

You are kindly asked to register for IPDO-2013 via the website <http://ipdo2013.congress-scientifique.com/>

If you aim to register for the Airbus visit, please contact Miss Chrystel Auriol-Alvarez: auriol@mines-albi.fr

Albi was classified as an UNESCO World Heritage Site, and since then the tourism activity has considerably increased, especially during the summer period. That is why it should better book your hotel room as soon as possible. Some rooms have been secured in several hotels in Albi and offer special rates for the attendees of the conference. Please mention IPDO-2013 during reservation.

Sincerely yours

On behalf of the Scientific Committee
Prof. Olivier Fudym
e-mail: olivier.fudym@mines-albi.fr

Subject: SIAM Conference on Imaging Science 2014
From: Fadil Santosa <santosa@umn.edu>
Date: 5/13/2013 11:32 AM

Dear All

The next SIAM Conference on Imaging Science will take place at Hong Kong Baptist University from May 12 to 14, 2014. The conference web site is <http://www.math.hkbu.edu.hk/SIAM-IS14/>

You can find the detailed information about
Call for Minisymposia
Call for Minitutorials
Call for Presentations
Call for Posters
and the important deadlines.

We hope to see in in Hong Kong next year.

Fadil Santosa
for the SIAG officers and the organizing committee of IS14

Subject: International meeting on Novel Directions on Inverse Scattering honoring David Colton
From: Fioralba Cakoni <cakoni@math.udel.edu>
Date: 5/26/2013

Dear Colleagues,

We would like to bring to your attention the international meeting on Novel Directions in Inverse Scattering honoring David Colton which will take place at the University of Delaware, July 29-August 2, 2013. For more details see <http://www.cmap.polytechnique.fr/~colton/>

If you are interested in participating please go to the website of the Conference and register.

NSF funding is available for supporting participation of graduate students, postdocs, and young faculty. You can apply for financial support on the registration page.

We are looking forward to seeing you in Delaware.

The Organizing Committee
F. Cakoni, L. Borcea, H. Haddar and P. Monk

Submitted by: Fioralba Cakoni, Department of Mathematical Sciences
University of Delaware, Newark, Delaware 19716-2553
tel: 1 302 831 0592 fax: 1 302 831 4511
<http://www.math.udel.edu/~cakoni/>

Subject: New Book: Advances in Applied Mathematics and Approximation Theory
From: "George A Anastassiou (ganastss)" <ganastss@gmail.com>
Date: 5/21/2013

<http://www.springer.com/mathematics/analysis/book/978-1-4614-6392-4>

Advances in Applied Mathematics and
Approximation Theory
Contributions from AMAT 2012

Series: Springer Proceedings in Mathematics & Statistics, Vol. 41
Anastassiou, George A.; Duman, Oktay (Eds.)
2013, XIX, 486 p. 31 illus., 11 illus. in color.

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

Subject: Table of Contents for Inverse Problems and Imaging
From: Liwei Ning <newsletter@aimsclences.org>
Date: 5/17/2013

Inverse Problems and Imaging (IPI) May 2013 Volume 7, Number 2
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<http://www.aimsclences.org/journals/contentsListnew.jsp?pubID=601>

On the optimal control of the free boundary problems for the second order parabolic equations. I. Well-posedness and convergence of the method of lines Ugur G. Abdulla

Stable determination of surface impedance on a rough obstacle by far field data Giovanni Alessandrini, Eva Sincich and Sergio Vessella

Inverse diffusion from knowledge of power densities
Guillaume Bal, Eric Bonnetier, François Monard and Faouzi Triki

Near-field imaging of the surface displacement on an infinite ground plane
Gang Bao and Junshan Lin

Gaussian Markov random field priors for inverse problems
Johnathan M. Bardsley

Study of noise effects in electrical impedance tomography with resistor networks Liliana Borcea, Fernando Guevara Vasquez and Alexander V. Mamonov

Far field model for time reversal and application to selective focusing on small dielectric inhomogeneities
Corinna Burkard, Aurelia Minut and Karim Ramdani

Source identification from line integral measurements and simple atmospheric models Brittan Farmer, Cassandra Hall and Selim Esedoglu

A note on analyticity properties of far field patterns
Roland Griesmaier, Nuutti Hyvönen and Otto Seiskari

A geometry guided image denoising scheme
Weihong Guo and Jing Qin

A three-dimensional inverse gravimetry problem for ice with snow caps
Victor Isakov, Shingyu Leung and Jianliang Qian

Imaging acoustic obstacles by singular and hypersingular point sources
Jingzhi Li, Hongyu Liu, Hongpeng Sun and Jun Zou

Total variation and wavelet regularization of orientation distribution functions in diffusion MRI
Yuyuan Ouyang, Yunmei Chen and Ying Wu

Local singularity reconstruction from integrals over curves in \mathbb{R}^3
Eric Todd Quinto and Hans Rullgård

Constructing continuous stationary covariances as limits of the second-order stochastic difference equations
Lassi Roininen, Petteri Piiroinen and Markku Lehtinen

Perfect pulse-compression coding via ARMA algorithms and unimodular transfer functions
Lassi Roininen and Markku S. Lehtinen

Submitted by: Liwei Ning, Editorial Manager
American Institute of Mathematical Sciences
Springfield, MO 65801 USA
Phone: 417-889-0336 Fax : 417-889-0336

Subject: Inverse Problems, Volume 29, Number 6, June 2013
From: <custserv@iop.org>
Date: 5/30/2013

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A mathematical framework for inverse wave problems in heterogeneous media (OPEN ACCESS)
Kirk D Blazek, Christiaan Stolk and William W Symes

A novel filtering framework through Girsanov correction for the identification of nonlinear dynamical systems
Tara Raveendran, Saikat Sarkar, D Roy and R M Vasu

A projected iterative method based on integral equations for inverse heat conduction in domains with a cut
Roman Chapko, B Tomas Johansson and Vasyl Vavrychuk

Cormack-type inversion of attenuated Radon transform
A Puro and A Garin

Direct and inverse acoustic scattering by a mixed-type scatterer (FREE ARTICLE)

Andreas Kirsch and Xiaodong Liu

A stability result for a time-dependent potential in a cylindrical domain Patricia Gaitan and Yavar Kian

Reconstruction of the wave speed from transmission eigenvalues for the spherically symmetric variable-speed wave equation
Tuncay Aktosun and Vassilis G Papanicolaou

The harmonic polynomial method for solving the Cauchy problem connected with the Laplace equation
Deyue Zhang, Guimin Zhang and Enxi Zheng

Numerical analysis of the factorization method for EIT with a piecewise constant uncertain background Housseem Haddar and Giovanni Migliorati

Semi-local inversion of the geodesic ray transform in the hyperbolic plane Matias Courdurier and Mariel Saez

Sparse, adaptive Smolyak quadratures for Bayesian inverse problems
Claudia Schillings and Christoph Schwab

The definite non-uniqueness results for deterministic EEG and MEG data (FEATURED ARTICLE)
George Dassios and A S Fokas

An exact inversion formula for cone beam vector tomography
Alexander Katsevich and Thomas Schuster

Simultaneous inversion for the space-dependent diffusion coefficient and the fractional order in the time-fractional diffusion equation
Gongsheng Li, Dali Zhang, Xianzheng Jia and Masahiro Yamamoto

A linear regularization scheme for inverse problems with unbounded linear operators on Banach spaces Holger Kohr

Inexact Bregman iteration with an application to Poisson data reconstruction A Benfenati and V Ruggiero

A convergent blind deconvolution method for post-adaptive-optics astronomical imaging
M Prato, A La Camera, S Bonettini and M Bertero

Multi-parameter Tikhonov regularization with the l_0 sparsity constraint
Wei Wang, Shuai Lu, Heng Mao and Jin Cheng

Uniqueness and reconstruction of an unknown semilinear term in a time-fractional reaction–diffusion equation
Yuri Luchko, William Rundell, Masahiro Yamamoto and Lihua Zuo

Rational approximations for tomographic reconstructions
Matthew Reynolds, Gregory Beylkin and Lucas Monzón

Erratum: Reconstruction of the wave speed from transmission eigenvalues for the spherically
symmetric variable-speed wave equation

Tuncay Aktosun and Vassilis G Papanicolaou

----- end -----

Today's Editor:

Patricia K. Lamm, Michigan State University

Today's Topics:

Call for Presentations: SIAM Conference on Imaging Science

Call for Nominations: Imaging Science Prize 2014

PhD Studentship: Hybrid Tomography for Conductivity Imaging, U. Edinburgh, UK

Call for Papers: Special CGO Issue of Inverse Problems and Imaging

Limited Free Access: High impact papers from AIMS

Table of Contents: Journal of Inverse and Ill-Posed Problems

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: SIAM Conference on Imaging Science (IS14)
 Call for Presentations Announcement

From: Kirsten Wilden <Wilden@siam.org>

Date: 7/23/2013

Conference Name: SIAM Conference on Imaging Science (IS14)

Location: Hong Kong Baptist University

Dates: May 12-14, 2014

Scientific Committee Co-chairs:

Barbara Kaltenbacher, University of Klagenfurt, Austria

Michael Ng, Hong Kong Baptist University, China

Fadil Santosa, University of Minnesota, USA

Scientific Committee Members:

Guillaume Bal, Columbia University, USA

Maitine Bergounioux, University of Orléans, France

Martin Burger, University of Münster, Germany

Yunmei Chen, University of Florida, USA

Gareth Funka-Lea, Siemens, USA

John Greer, National Geospatial Agency, USA

David Gu, State University of New York at Stony Brook, USA

Sung Ha Kang, Georgia Institute of Technology, USA

Aggelos Katsaggelos, Northwestern University, USA

Ron Kimmel, Technion, Israel
Patricia Lamm, Michigan State University, USA
Jean-Michel Morel, ENS Cachan, France
Adrian Nachman, University of Toronto, Canada

Invited Speakers:

Antonin Chambolle (Ecole Polytechnique, France)
Michael Elad (Technion, Israel)
Leo Grady (HeartFlow, USA)
Yi Ma (Microsoft Research Asia)
Carola-Bibiane Schönlieb (University of Cambridge, United Kingdom)
Rebecca Willett (Duke University, USA)

The Call for Presentations is available at:

<http://www.math.hkbu.edu.hk/SIAM-IS14/Submission.html>

Twitter hashtag: #SIAMIS14

****Deadlines****

30 September 2013: Minitutorial proposals
30 September 2013: Minisymposium proposals
30 October 2013: Abstracts for contributed and minisymposium speakers
30 October 2013: Abstracts for posters

For additional information, contact is14sub@math.hkbu.edu.hk

Subject: SIAM AG on Imaging Science Prize 2014: Call for nominations

From: Christine De Mol <demol@ulb.ac.be>
Date: 7/22/2013 9:19 AM

Dear Colleagues,

Please note that the 2014 SIAM Activity Group on Imaging Science Prize (SIAG/IS Prize) will be awarded to the authors of the best paper, as determined by the prize committee, on mathematical and computational aspects of imaging. Imaging is broadly interpreted to include: image formation, inverse problems in imaging, image processing, image analysis, image interpretation and understanding, computer graphics, and visualization.

Candidate papers must be published in English, in a peer-reviewed journal, with a publication date in the period from January 1, 2009, through December 31, 2012.

The deadline for nominations is September 15, 2013.

The award will be presented at the SIAM Conference on Imaging Science (IS14), to be held May 12-14, 2014, in Hong Kong.

More details about the prize and the official call for nominations are available at <http://www.siam.org/prizes/sponsored/siagis.php>
http://www.siam.org/prizes/nominations/nom_siag_is.php

Looking forward to receiving many nominations for outstanding papers.

Sincerely,

Christine De Mol
Chair, SIAM Activity Group on Imaging Science

Subject: PhD studentship in tomography at the University of Edinburgh, UK

From: Nick Polydorides <nick.polydorides@gmail.com>

Date: 7/30/2013

The School of Engineering at the University of Edinburgh offers a PhD studentship on hybrid tomography for conductivity imaging, under the supervision of Dr Nick Polydorides at the Institute of Digital Communications.

The project seeks to develop tomographic reconstruction algorithms for imaging the electrical conductivity of a body using measurements arising from complimentary sensing modalities. Important for many applications in biomedical imaging and industrial process tomography, this technology aims to yield noise-robust, quantitative images with improved spatial resolution, eradicating some of the shortcomings of electrical impedance tomography.

The selected candidate will develop mathematical models to simulate the physical measurements as well as image reconstruction algorithms for solving nonlinear inverse problems.

For further details please visit

<http://www.findaphd.com/search/ProjectDetails.aspx?PJID=46188> or contact Nick Polydorides at nick.polydorides@gmail.com

Closing date: 30 September, 2013.

Subject: Inverse Problems and Imaging: CGO Special Issue Alert!

From: Sarah Hamilton <sarah.hamilton@helsinki.fi>

Date: 5/31/2013

Dear Fellow Inversionists,

I am writing to make you aware of a unique opportunity to contribute an article for a special issue of Inverse Problems and Imaging focused on Complex Geometrical Optics (CGO) solutions. On behalf of the Guest Editors (Samuli Siltanen, Kim Knudsen, Gunther Uhlmann, and myself), I would like to invite you to submit an article for publication in the special issue. Further information regarding the call for papers can be found below.

We look forward to hearing from you.

Sincerely,
Sarah Hamilton (on behalf of the Guest editors)

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Call for papers

Inverse Problems and Imaging:
Special Issue on Inverse Problems and Complex Geometrical Optics Solutions

Complex Geometrical Optics (CGO) solutions have, for more than two decades, played a large role in the rigorous analysis of nonlinear inverse problems, such as the Calderón problem. These solutions have led to new practical reconstruction algorithms. CGO solutions are now seen as valuable tools for providing a crucial connection between theoretical results and practical computational implementations.

The focus of the Special Issue is on new approaches to inverse problems based on CGO solutions. Both theoretical and computational papers are welcome. We would encourage theoretical papers to have a constructive approach, so that numerical teams would be able to pick up the approach as a basis of a new algorithm.

Examples of previous work in this direction, in view of the Calderón problem, include Sylvester-Uhlmann 1987, Nachman 1988 and 1996, Brown-Uhlmann 1997, Francini 2000, Astala-Päivärinta 2005 and all of their subsequent numerical implementations. The enclosure method and generalized probing also belong to the relevant category, and quite recently in the emerging field of hybrid inverse problems, CGO solutions have been useful in obtaining fundamental results.

We hope that this issue will provide experts with an update on the status of the field, as well as young researchers a self-contained resource to be used as a platform for new developments.

We warmly invite you to submit your manuscript by email to samuli.siltanen@helsinki.fi no later than November 30, 2013. The manuscripts will be peer-reviewed by two anonymous experts according to the usual high standards of Inverse Problems and Imaging.

We kindly ask you to distribute this call among all colleagues who might be interested in submitting their work to the Special Issue.

If you have any questions about the Special Issue, please feel free to contact any of us, serving as Guest Editors:

Sarah Hamilton
University of Helsinki, Finland
sarah.hamilton@helsinki.fi

Kim Knudsen
Technical University of Denmark
kiknu@dtu.dk

Samuli Siltanen
University of Helsinki, Finland
Samuli.Siltanen@helsinki.fi

Gunther Uhlmann
University of Washington, USA
gunther@math.washington.edu

Subject: High impact papers from AIMS made accessible

From: Susan Cummins <newsletter@aimsciences.org>
Date: 7/12/2013

American Institute of Mathematical Sciences

At the American Institute of Mathematical Sciences, we are pleased to have published contributions from all leading researchers in the fields, including 7 Fields Medalists: Jean Bourgain, Charles Fefferman, Elon Lindenstrauss, P.-L. Lions, Terence Tao, Cedric Villani and Shing-Tung Yau. For the next two months we are offering you the following

high impact papers access free. And please consider submitting your next articles to our journals at <http://www.aims.org>.

Enjoy free access to these high impact papers until September 1st!

Two remarks on the generalised Korteweg de-Vries equation
Terence Tao

Interpolation by linear programming I
Charles Fefferman

Regularity of optimal transport and cut locus: From nonsmooth analysis to geometry to smooth analysis
Cedric Villani

On random Schrodinger operators on Z^2
Jean Bourgain

Continuity of admissible trajectories for state constraints control problems
M. Arisawa and P.-L. Lions

On measures invariant under diagonalizable actions: the Rank-One case and the general Low-Entropy method
Manfred Einsiedler and Elon Lindenstrauss

Nodal geometry of graphs on surfaces
Yong Lin, Gabor Lippner, Dan Mangoubi and Shing-Tung Yau

Global attractors for damped semilinear wave equations
John M. Ball

Transport in rotating fluids
Peter Constantin

Radial solutions to energy supercritical wave equations in odd dimensions
Carlos E. Kenig and Frank Merle

An introduction to migration-selection PDE models
Yuan Lou, Thomas Nagylaki and Wei-Ming Ni

Analysis on the junctions of domain walls
Luis A. Caffarelli and Fang Hua Lin

A case study in vanishing viscosity

Stefano Bianchini and Alberto Bressan

Mathematical strategies for filtering turbulent dynamical systems

Andrew J. Majda, John Harlim and Boris Gershgorin

Spectral theory and nonlinear partial differential equations: A survey

Wilhelm Schlag

AIMS 10th International Conference

The 10th AIMS Conference on Dynamical Systems, Differential Equations and Applications will be held July 7 - 11, 2014 in Madrid, Spain.

Subject: Table of Contents 'Journal of Inverse and Ill-Posed Problems'

From: "noreply@degruyter.com" <noreply@degruyter.com>

Date: 6/4/2013

Journal of Inverse and Ill-Posed Problems June 2013 Volume 21, Issue 3

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"Recent Progress in Regularization Theory" Minisymposium M5 of the 6-th International Conference "Inverse Problems: Modeling and Simulation"

TGV for diffusion tensors: A comparison of fidelity functions

Valkonen, Tuomo / Bredies, Kristian / Knoll, Florian

Variational inequalities and higher order convergence rates for Tikhonov regularisation on Banach spaces Grasmair, Markus

Variational smoothness assumptions in convergence rate theory—an overview

Flemming, Jens

On the smoothness and convexity of Besov spaces Kazimierski, Kamil S.

An H1-Kaczmarz reconstructor for atmospheric tomography

Eslitzbichler, Markus / Pechstein, Clemens / Ramlau, Ronny

A new cumulative wavefront reconstructor for the Shack–Hartmann sensor

Neubauer, Andreas

Subject: Inverse Problems, Volume 29, Number 8, August 2013

From: [<custserv@iop.org>](mailto:custserv@iop.org)

Date: 7/31/2013

Inverse Problems August 2013 Volume 29, Number 8
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Accurate imaging of moving targets via random sensor arrays and Kerdock codes
Thomas Strohmer and Haichao Wang

Uniqueness in the determination of vibration sources in rectangular Germain–Lagrange
plates using displacement measurements over line segments with arbitrary small
length
Alexandre Kawano

Wavelet methods in multi-conjugate adaptive optics T Helin and M Yudyskiy

Simultaneous recovery of admittivity and body shape in electrical impedance
tomography: an experimental evaluation
Jérémi Dardé, Nuutti Hyvönen, Aku Seppänen, and Stratos Staboulis

Reverse time migration for extended obstacles: acoustic waves
Junqing Chen, Zhiming Chen, and Guanghui Huang

Reverse time migration for extended obstacles: electromagnetic waves
Junqing Chen, Zhiming Chen, and Guanghui Huang

Linear multistep methods, particle filtering and sequential Monte Carlo
Andrea Arnold, Daniela Calvetti, and Erkki Somersalo

Regularization with randomized SVD for large-scale discrete inverse problems
Hua Xiang and Jun Zou

A new approach to solve the inverse scattering problem for waves: combining the
TRAC and the adaptive inversion methods Maya de Buhan and Marie Kray

Complexity analysis of accelerated MCMC methods for Bayesian inversion
Viet Ha Hoang, Christoph Schwab, and Andrew M Stuart

Landweber iteration of Kaczmarz type with general non-smooth convex penalty
functionals
Qinian Jin and Wei Wang

On multidimensional inverse scattering in time-dependent electric fields

Tadayoshi Adachi, Yuko Fujiwara, and Atsuhide Ishida

The enclosure method for inverse obstacle scattering problems with dynamical data over a finite time interval: III. Sound-soft obstacle and bistatic data

Masaru Ikehata

Time reversal for radiative transport with applications to inverse and control problems

Sebastian Acosta

Subject: Table of Contents, Nonlinear Analysis: Modelling and Control

From: Romas Baronas <romas.baronas@mif.vu.lt>

Date: 7/19/2013

Nonlinear Analysis: Modelling and Control 2012 Volume 17, Number 3

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Multiple cycles and the Bautin bifurcation in the Goodwin model of a class struggle

Giovanni Bella

Expansions in Appell polynomials of the convolutions of probability distributions

Algimantas Bikelis, Kazimieras Padvelskis

Multi-objective single agent stochastic search in non-dominated sorting genetic algorithm

Algirdas Lancinskas, Pilar Martinez Ortigosa, Julius Žilinskas

Joint universality of the Riemann zeta-function and Lerch zeta-functions

Antanas Laurincikas, Renata Macaitiene.

Estimation of parameters of finite population L-statistics

Dalius Pumputis, Andrius Ciginas

Some new fixed point results in non-Archimedean fuzzy metric spaces

Peyman Salimi, Calogero Vetro, Pasquale Vetro

Triple-zero singularity of a Kaldor–Kalecki model of business cycles with delay

Xiaoqin P. Wu

Dynamic properties of the coupled Oregonator model with delay

Xiang Wu, Chunrui Zhang

A free on-line edition is available at: <http://www.mii.lt/NA/>

Submitted by: Dr. Romas Baronas, Deputy-Editor-in-Chief,
Nonlinear Analysis: Modelling and Control, <http://www.mii.lt/NA/>
----- end -----

IPNet Digest Volume 20, Number 07 September 1, 2013

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

Today's Topics:

2014 International Conference on Inverse Problems in Engineering

Positions Offered at the Chair of Optimization and Inverse Problems

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: ICIPE 2014

From: "Woodbury, Keith" <keith.woodbury@ua.edu>

Date: 8/31/2013

CALL FOR ABSTRACTS

2014 International Conference on Inverse Problems in Engineering (2014 ICIPE)

Dear Author,

You are invited to submit an abstract for the 8th International Conference on Inverse Problems in Engineering (ICIPE2014).

Conference Website: <http://www.icipe2014.org>

The conference will be held on May 12-15, 2014, Cracow, Poland.

ICIPE2014 is the continuation of the conference series which began in Palm Coast, FL, USA, in 1993.

Prospective speakers are invited to submit a 2-page extended abstract through the conference website by September 28, 2013. Upon abstract acceptance, authors are encouraged to also submit a full paper for peer review by February 1, 2014. The full publication schedule can be found on the website or at the bottom of this e-mail message.

A set of contributed papers will be selected by the Scientific Committee for post-conference publications in the Special Issues of:

1. International Journal of Numerical Methods for Heat & Fluid Flow (IJNMHFF) and,
2. Computer Assisted Methods in Mechanics and Science (CAMES).

Additionally all Authors of papers presented at the conference are encouraged to submit full versions of their papers to

3. Inverse Problems in Science and Engineering (IPSE).

PAPER SUBMISSION

All papers submitted must be original, unpublished, and not submitted concurrently for publication elsewhere. Speakers desiring presentation only (no paper submission) may report on work from other publications, as they desire.

Contributions **MUST** be written and presented in English. Word and LaTeX template are available on the conference website. The final version of the paper must be submitted in the pdf file.

Timetable

- Abstract submission deadline: September 28, 2013
- Abstract acceptance notification: November 2, 2013
- Paper submission deadline: February 1, 2014
- Paper acceptance notification: March 15, 2014
- Final paper submission deadline: April 12, 2014
- Conference start: May 12, 2014

Contact

If you have any further queries, please do not to hesitate to contact us.

Organizer Email: icipe2014@icipe2014.org

You can also find out us on a Conference Facebook profile (ICIPE2014) or on a Twitter (@ICIPE2014).

We look forward to seeing you in Cracow,

Yours sincerely,

Ireneusz Szczygiel, Conference Chair
Andrzej J. Nowak, Conference Co-Chair
Keith A. Woodbury, ICIPE Steering Committee
Marek Rojczyk, Conference Secretary

Subject: Teaching / Research Assistant (m/f) (Postdoc / Ph.D. Student)
at the University of Stuttgart, Germany

From: Maria Wegner <maria.wegner@mathematik.uni-stuttgart.de>
Date: 8/12/2013

At the Chair of Optimization and Inverse Problems,
Department of Mathematics - IMNG, University of Stuttgart / Germany,

we offer the position of a

Teaching / Research Assistant (m/f)
(Postdoc / Ph.D. Student)

Start date 10/01/2013 or by agreement

Please see the job posting and contact details at <http://www.mathematik.uni-stuttgart.de/fak8/imng/lehrstuhl/oip/index.en.html>

(Please note that the deadline is 08/31/2013 but we consider applications until the position is filled.)

Submitted by: Maria Wegner, Secretary to Prof. Dr. Bastian von Harrach
Chair of Optimization and Inverse Problems, Department of Mathematics - IMNG
University of Stuttgart / Allmandring 5b / 70569 Stuttgart / Germany
Phone +49 711 685-68402 E-Mail: maria.wegner@mathematik.uni-stuttgart.de

Subject: Inverse Problems, Volume 29, Number 7, July 2013

From: [<custserv@iop.org>](mailto:custserv@iop.org)

Date: 7/2/2013

Inverse Problems July 2013 Volume 29, Number 7
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Analysis of local projected current density from one component of magnetic flux density in MREIT

Hyung Joong Kim, Saurav Z K Sajib, Woo Chul Jeong, Myoung Nyoun Kim, Oh In Kwon, and Eung Je Woo

Multi-penalty regularization with a component-wise penalization

V Naumova, and S V Pereverzyev

Tikhonov regularization in L_p applied to inverse medium scattering

Armin Lechleiter, Kamil S Kazimierski, and Mirza Karamehmedovic'

Supercomputer technologies in inverse problems of ultrasound tomography

Alexander V Goncharsky, and Sergey Y Romanov

Recovery of inclusions in 2D and 3D domains for Poisson's equation

Kazufumi Ito, and Ji-Chuan Liu

A gradient-based method for quantitative photoacoustic tomography using the radiative transfer equation

T Saratoon, T Tarvainen, B T Cox, and S R Arridge

Frame-based Poisson image restoration using a proximal linearized alternating direction method

T Jeong, H Woo, and S Yun

Broken ray transform: inversion and a range condition

A Katsevich, and R Krylov

Potential recovery for Reissner--Mindlin and Kirchhoff--Love plate models using global Carleman estimates

Axel Osses, and Benjamín Palacios

Inverse electrostatic and elasticity problems for checkered distributions

Andrei Artemev, Leonid Parnovski, and Iosif Polterovich

Applications of the alternating direction method of multipliers to the semidefinite inverse quadratic eigenvalue problem with a partial eigenstructure

Zhengjian Bai, Meixiang Chen, and Xiaoming Yuan

Acoustic inverse scattering using topological derivative of far-field measurements-based L2 cost functionals

Cédric Bellis, Marc Bonnet, and Fioralba Cakoni

Coefficient inverse problem for a fractional diffusion equation

Luc Miller, and Masahiro Yamamoto

Reduced-order model tracking and interpolation to solve PDE-based Bayesian inverse problems

Raphael Sternfels, and Christopher J Earls

Inverse backscattering Born approximation for a two-dimensional magnetic Schrödinger operator Valery Serov

Necessary conditions for variational regularization schemes

Dirk Lorenz, and Nadja Worliczek

Adaptive estimation of the density matrix in quantum homodyne tomography with noisy data

P Alquier, K Meziani, and G Peyré

Stability and regularization for determining sets of discrete Laplacian

Maru Guadie, and Eugenia Malinnikova

Issue online available at:

<http://iopscience.iop.org/0266-5611/29/7/email-alert/1137387909>

Subject: Table of Contents Alert 'Journal of Inverse and Ill-Posed Problems'

From: [<noreply@degruyter.com>](mailto:noreply@degruyter.com)

Date: 8/9/2013

Journal of Inverse and Ill-Posed Problems August, 2013 Volume 21, Issue 4
Table of Contents

Carleman estimates for global uniqueness, stability and numerical methods for coefficient inverse problems Klivanov, Michael V.

Two-parameter discrepancy principle for combined projection and Tikhonov regularization of ill-posed problems Regin'ska, Teresa

A source identification problem in linear parabolic problems: A semigroup approach

Slodicka, Marián

Available online from De Gruyter Online:

<http://www.degruyter.com/view/j/jip.2013.21.issue-4/issue-files/jip.2013.21.issue-4.xml>

----- end -----

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

Today's Topics:

Conference: Inverse Problems: Modeling and Simulation

Conference: Advances in Math. and Num. Analysis of Inverse Problems

Conference: Computational and Experimental Biomedical Sciences

Conference: Copper Mountain Conference on Iterative Methods

Conference: Spectral and High-Order Methods

Jobs: Four Postdoctoral Positions in Statistical Inverse Problems

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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: Inverse Problems: Modeling and Simulation

From: Alemdar Hasanov <alemdar.hasanoglu@izmir.edu.tr>

Date: 9/5/2013

THE SEVENTH INTERNATIONAL CONFERENCE
"INVERSE PROBLEMS: MODELING & SIMULATION"

<http://www.ipms-conference.org>

Lykia World Ölüdeniz Hotel, Fethiye – Turkey

Following the success of previous IPMS Conferences The Seventh International Conference "Inverse Problems: Modeling and Simulation" will be held during May 26 – 31, 2014, in one of the distinguished hotels of the Mediterranean Region, in the famous Lykia World Ölüdeniz Hotel, Fethiye, Turkey. The objective of this meeting is to be multidisciplinary and international, bringing together scientists working on various topics of inverse problems in diverse areas, such as mathematics, engineering, physics, geology, chemistry, biology, medicine, material science, nanotechnology, meteorology, finance, and many areas in the fields of biotechnology, genetics and ecology.

This Conference will be held under the auspices of Izmir University and also the leading international journals "Inverse Problems", "Inverse Problems and Imaging", "Journal of Inverse and Ill-Posed Problems" and "Inverse Problems in Science and Engineering". The main aim of the Conference is to bring together all classical and new inverse problems areas from various international scientific schools and to discuss new challenges of inverse problems in current interdisciplinary sciences.

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

Co-Chairs: H.T. Banks, S.I. Kabanikhin, D. Lesnic, A.K. Louis

International Program Committee:

G. Dulikravich, A. El Badia, W. Freeden,, D. Gintides, A. Grünbaum, U. Hämarik, D.N. Hào, B. Hofmann, V. Isakov, A. A. Khan, F.J. Küçük, P. Maass, M. Z. Nashed, A. Neubauer, B. Nilsson, H.R.B. Orlande, L. Päivärinta, E.T. Quinto, V. G. Romanov, O. Scherzer, M. Slodicka, V. Vasin, A. Yagola, V. Yakhno, F. Zirilli

Main Topics: *Inverse Problems in: Electromagnetism, Tomography; Mechanics, Material Science, Heat and Mass Transfer, Chemistry, Biology, Medicine, Economics, Acoustics, Geophysics; Learning Theory; *Imaging; *Statistical and Probabilistic Methods; *Numerical Inversion Methods; *Identification in Nonlinear Differential Equations; *Regularization Methods; *Optimization; *Inverse Scattering and Time Reversal; *Determination of Boundary and Initial Conditions; *Computational; *Identifiability Concepts; *Spectral Inversion; *Data Analysis

Plenary Speakers

Alexander Bukhgeym, Inverse problems and integral geometry, Wichita State University, USA

Jens Flemming, Regularization of autoconvolution equations and other ill-posed problems of quadratic structure, Chemnitz University of Technology, Germany

Michael V. Klibanov, Approximate global convergence for coefficient inverse problems, University of North Carolina at Charlotte, USA

Roman Novikov, Inverse problems of quantum and acoustic scattering at fixed frequency, Ecole Polytechnique, France

Announced Minisymposia:

M1. Recent Developments in Inverse Problems and Tomography
(Dedicated to the 65th birthday of Professor Alfred K. Louis)

M2. Inverse Problems in Wave Phenomena, in Financial and Actuarial Applications (Dedicated to the 65th birthday of Professor Francesco Zirilli)

M3. Recent Developments in Inverse Coefficient and Source Problems (Dedicated to the 60th birthday of Professor Alemdar Hasanoglu Hasanov)

M4. Inverse Problems in Guides (Organizer: Y.V. Shestopalov, Karlstad University)

M5. Inverse Problems in Nonlinear PDEs (Organizer: M. Slodicka, Ghent University)

M6. Recent Developments in Regularization Techniques: Theory and Applications (Organizers: B. Hofmann, Chemnitz University of Technology; A. Neubauer, University of Linz)

M7. Regularization and parameter choice
(Organizers: U. Hämarik, T. Raus, University of Tartu; B. Kaltenbacher, Klagenfurt University)

M8. Inverse Source Problems (Organizers: A. El Badia, Univ. of Technology of Compiègne; D. Lesnic, University of Leeds)

M9. Analytical and Numerical Methods for Inverse Problems
(Organizer: M. V. Klibanov, University of North Carolina at Charlotte)

M10. Inverse Problems and Imaging (Dedicated to the 60th anniversary of Professor Lassi Päivärinta)

M11: Inverse and Data Assimilation Problems in Geophysical Hydrodynamics: Theory and Applications (Organizers: V. Shutyaev, V. Agoshkov, V. Zalesny, Institute of Numerical Mathematics, RAS, Russia; R. Potthast, German Meteorological Service DWD, Germany and University of Reading, UK)

M12: Multidimensional Ill-Posed Problems (Organizer: A. Yagola, Moscow State University, Russia)

M13: Inverse Problems in Tomography and Related Areas (Organizers: P. Maass, University of Bremen, Germany; E. T. Quinto, Tufts University, USA, todd.quinto@tufts.edu)

M14: Inverse Problems in Partial Differential Equations and Variational Inequalities (Organizers: Akhtar A. Khan, Rochester Institute of Technology, USA; M. Sama, Universidad Nacional de Educacin a

Distancia Madrid, Spain; C. Tammer, Martin-Luther-University of Halle-Wittenberg, Germany; F. Raciti, University of Catania, Italy)

Contact Address: Pinar Baris, (Ms), Department of Mathematics and Computer Sciences, Izmir University, Izmir – TURKEY;
E-mail: pinar.baris@izmir.edu.tr

Submitted by: Alemdar Hasanoglu (Hasanov)
Ph.D, Doctor of Physical and Mathematical Sciences
Home page: <http://www.izmir.edu.tr/ahasanoglu/>
Department of Mathematics and Computer Science
Izmir University
Gursel Aksel Bulvari, No:14, 35350, Uckuyular, Izmir - TURKEY

Subject: Conference "Advances in Mathematical and Numerical Analysis of Inverse Problems"

From: "michel cristofol (AMU)" <michel.cristofol@univ-amu.fr>
Date: 9/24/2013

The conference "Advances in Mathematical and Numerical Analysis of Inverse Problems" will be held at CIRM in Marseille, France from May 19th to 23th, 2014

See the web site of the conference :

<http://invmars14.sciencesconf.org/>

or

http://www.cirm.univ-mrs.fr/index.html/spip.php?rubrique2&EX=info_rencontre&annee=2014&id_renc=1038

Submitted by: Michel Cristofol

Subject: ICCEBS 2013 - Announce & Invitation

From: <iccebs@fe.up.pt>
Date: 9/6/2013

Dear Colleague,

We are pleased to announce the International Conference on Computational and Experimental Biomedical Sciences (ICCEBS2013 - www.fe.up.pt/~iccebs) in Ponta Delgada, S Miguel Island, Azores, October 20-22, 2013.

The use of more robust, affordable and efficient techniques and technologies with application in Biomedical Sciences is presently a subject of huge interest and demand, and ICCEBS is intended to be a privileged discussion forum to define their key stakeholders.

ICCEBS will bring together researchers from around the world representing several scientific fields related to Biomedical Sciences, including Engineering, Medicine, Biomechanics, Bioengineering, Biomaterials, Experimental Mechanics, Computer Sciences, Computational Mathematics, Hardware Developers and

Manufactures, Electronic and Instrumentation and Materials Science.

TOPICS

In ICCEBS2013 will be considered topics of (not limited to):

- Analysis and diagnosis;
- Applications in medicine;
- Applications in veterinary;
- Artificial organs;
- Bioengineering;
- Biofluid;
- Biological microelectromechanical systems, Labs-on-chips and Life-chips;
- Biomaterials;
- Biomedical devices;
- Computational bio- imaging and visualization;
- Computational methods;
- Computer aided diagnosis;
- Computer assisted surgery;
- Experimental mechanics;
- Implantology;
- Medical robotics;
- Minimally invasive devices and techniques;
- Molecular and Cellular Biomechanics;
- Numerical methods;
- Prosthesis and orthosis;
- Rehabilitation;
- ImagingSignal processing and analysis;
- Simulation;
- Software development;
- Sustainability;
- Technical aids;
- Telemedicine;
- Tissue engineering;
- Virtual reality.

Due to your very interesting and key research activities, we would like to invite you to participate in ICCEBS2013 and share your expertise. Your contribution is welcomed, and we would be honored if you could accept this invitation.

INVITED KEYNOTES

"The Biomechanics Detective & Clues to Expensive Unintentional Injuries"
James A. Ashton-Miller - University of Michigan, USA

"Experimental and numerical microstructural modelling of vascular tissues"
Estefanía Peña Baquedano - Universidad de Zaragoza, Spain

"Modelling flow induced ATP/ADP concentration transport in patient-specific arteries"
Perumal Nithiarasu - Swansea University, UK

DATES

- Deadline for one page abstract submission: 30th September 2013;
- Authors' notification: 5th October 2013;
- Deadline for full papers (not mandatory): 15th January 2014.

PUBLICATIONS

- Abstracts: All accepted abstracts will be distributed in a USB pen.
- Full Papers (not mandatory): The proceedings book of ICCEBS2013, with all full papers, will be published by Springer under the Book Series Lecture Notes in Computational Vision and Biomechanics (www.springer.com/series/8910).
- The organizers will prepare the publishing of a book with 20 invited works from the most important ones presented in ICCEBS2013 (extended versions). The book will be published by Springer under the Book Series Lecture Notes in Computational Vision and Biomechanics (www.springer.com/series/8910).
- Additionally, the organizers will encourage the submission of extended versions of the accepted works to related International Journals; particularly, for special journal issues dedicated to ICCEBS2013. Two already confirmed possibilities are: Computer Methods in Biomechanics and Biomedical Engineering: Imaging & Visualization (www.tandfonline.com/loi/tciv20) and International Journal for Computational Vision and Biomechanics (www.fe.up.pt/~ijcvb).

AWARD

A best work prize will be given by the conference organizers to the best work presented in ICCEBS2013.

Best wishes,

João Manuel R. S. Tavares, Universidade do Porto, Portugal (tavares@fe.up.pt)
Renato Natal Jorge, Universidade do Porto, Portugal (rnatal@fe.up.pt)
(ICCEBS co-chairs)

PS. For more information, you are invited to visit the conference webpage at: www.fe.up.pt/~iccebs.

Subject: 2014 Copper Mountain Conference on Iterative Methods

From: Annette Anthony
Date: 9/20/2013

ANNOUNCING:

The Thirteenth Copper Mountain Conference on Iterative Methods
April 6 – April 11, 2014
Copper Mountain, Colorado, USA

ORGANIZED BY:

Front Range Scientific Computations, Inc.

CO-ORGANIZED BY:

Sandia National Laboratory
The University of Colorado Applied Math Department
Emory University

IN CO-OPERATION WITH:

The Society for Industrial and Applied Mathematics

CONFERENCE DEADLINES:

Student Competition Papers	January 10, 2014
Author Abstracts	January 17, 2014
Early Registration	March 6, 2014
Guaranteed Lodging	March 4, 2014

HIGHLIGHTED TOPICS:

Stochastic PDEs and Uncertainty Quantification
Scale-free/Small World Graphs, Page Rank and Markov Chains
Multigrid and Other Iterative Schemes on GPU & Multicore Architectures
Inverse Problems and Regularization
Optimization of Complex Systems
Nonlinear Solution Methods, Nonlinear Least-Squares
Multigrid All-At-Once and Block Approaches to PDE Systems
Coupled Multi-Physics Problems
Time-Parallel Algorithms
Krylov Accelerators
Hybrid Direct-Iterative Linear Solvers
Iterative Methods in Challenging Applications
(e.g., Electromagnetics, Energy, Environmental, Data Assimilation,
MHD, Neutronics, Transport/Reaction, Chemical Engineering)

IMPORTANT FEATURES:

Student Paper Competition. Travel and lodging assistance will be awarded to students and new PhDs judged to have submitted the best research papers

Workshops – Informal Topical Discussions

FURTHER INFORMATION:

Please access our website at:

<http://grandmaster.colorado.edu/~copper/2014/>

or contact the conference coordinator:

Annette Anthony
Front Range Scientific Computations
copper@colorado.edu
(480) 332-2026

Subject: Conference Announcement: ICOSAHOM 2014

From: Yekaterina Epshteyn <epshteyn@math.utah.edu>
Date: 9/17/2013

ICOSAHOM'14
International Conference on Spectral and High-Order Methods 2014
June 23-27 2014, Salt Lake City, Utah, USA
<http://www.icosahom2014.org/>

First Call for Mini-Symposium Proposal: Submission Deadline December 15 2013

The 10th International Conference on Spectral and High-Order Methods, will be hosted by the University of Utah, Salt Lake City, Utah, on June 23-June 27, 2014. The purpose of this conference series is to bring together researchers and practitioners with an interest in the theoretical, computational and applied aspects of high-order and spectral methods for the solution of differential equations.

Plenary speakers:

Susanne Brenner, Louisiana State Univ., USA
Martin Costabel, Univ. of Rennes 1, France
Sigal Gottlieb, Univ. of Massachusetts, Dartmouth, USA
Thomas Hagstrom, Southern Methodist Univ., USA
Ricardo Nochetto, Univ. of Maryland, USA
Per-Olof Persson, Univ. of California, Berkeley, USA
Jennifer Ryan, Univ. of East Anglia, UK
Thomas Wihler, Bern Univ., Switzerland

All interested participants are encouraged to submit a mini-symposium proposal. For submission guidelines as well as additional conference information, please visit the conference webpage:
<http://www.icosahom2014.org/>

It is anticipated that partial financial support will be available for students and junior researchers. Information regarding application will be posted on the website of the conference.

If you have questions, please email us at
icosahom2014-questions@sci.utah.edu

We look forward to seeing you in Salt Lake City in June 2014!

Yekaterina Epshteyn and Rodrigo Platte on behalf of the organizing committee.

Subject: Four Posdoctoral Positions in Statistical Inverse Problems

From: andrew stuart <andrewmstuart@gmail.com>
Date: 9/14/2013

Four Posdoctoral Positions in Statistical Inverse Problems
Enabling Quantification of Uncertainty for Inverse Problems (EQUIP)

As part of the EPSRC funded EQUIP Programme Grant, Warwick University and Heriot-Watt University are advertising four postdoctoral positions in statistical inverse problems. Three posts will be based at the University of Warwick and another post at the University of Heriot-Watt. Each will have a two year duration, and may start at a mutually agreed date in the calendar year 2014. EQUIP is led by Andrew Stuart (Mathematics, Warwick) and comprises Mike Christie (Petroleum Engineering, Heriot-Watt), Mark Girolami (Statistical Science, currently UCL but moving to Warwick) and Gareth Roberts (Statistics, Warwick). Applicants with expertise in the areas of inverse problems, numerical analysis, computational

partial differential equations, computational and theoretical statistics and subsurface geophysics are encouraged to apply.

For details about EQUIP, and links to the application process, see:

<http://www2.warwick.ac.uk/fac/sci/math/research/grants/equip>

Submitted by: Andrew Stuart
a.m.stuart@warwick.ac.uk
http://www2.warwick.ac.uk/fac/sci/math/people/staff/andrew_stuart/

Subject: Table of Contents 'Journal of Inverse and Ill-Posed Problems'

From: <noreply@degruyter.com>
Date: 9/10/2013

Journal of Inverse and Ill-Posed Problems August Vol. 21, Issue 4
Table of Contents

Carleman estimates for global uniqueness, stability and numerical methods for coefficient inverse problems Michael V. Klibanov

Two-parameter discrepancy principle for combined projection and Tikhonov regularization of ill-posed problems Teresa Regin'ska

A source identification problem in linear parabolic problems: A semigroup approach Marián Slodicka

Online: <http://www.degruyter.com/view/j/jip.2013.21.issue-4/issue-files/jip.2013.21.issue-4.xml>

Subject: Table of Contents for IPSE in IPNet Digest

From: "Gray, Helen" <Helen.Gray@tandf.co.uk>
Date: 9/16/2013

The latest issue of Inverse Problems in Science and Engineering (Volume 21, Issue 6) is now available online at: <http://www.tandfonline.com/toc/gipe20/current>

We are pleased to present in this issue a special section of selected papers from the 2nd International Symposium on Inverse Problems of Mechanics of Structures and Materials-IPM 2011, 27-30 April 2011, Rzeszów-Sieniawa, Poland.

Inverse Problems in Science and Engineering 2013 Vol. 21, Iss. 6
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Foreword Zenon Waszczyszyn

Passive electric potential CT method using piezoelectric film for identification of defects
Shiro Kubo, Takahide Sakagami & Seiji Ioka

Damage identification in multfield materials using neural networks
Gabriel Hattori & Andrés Sáez

Soft computing methods in the analysis of elastic wave signals and damage identification Piotr Nazarko

Hybrid artificial immune system in identification of room acoustic properties
A. Poteralski, M. Szczepanik, J. Ptaszny, W. Kus & T. Burczynski

Solution of electromagnetic inverse medium scattering problems by the adaptive finite element method and perfectly matched layer
Waldemar Rachowicz

Numerical modelling of slumps under highways located on a mining damage area, based on experimental measurements
Slawomir Milewski & Janusz Orkisz

Inverse source problem in a one-dimensional evolution linear transport equation with spatially varying coefficients: application to surface water pollution Adel Hamdi & Imed Mahfoudhi

Reconstruction for the spherically symmetric speed of sound from nodal data Yu Ping Wang, Zhen You Huang & Chuan Fu Yang

A bivariate Gaussian function approach for inverse cracks identification of forced-vibrating bridge decks
Myung-Hyun Noh & Sang-Youl Lee

A new multimodal cortical source imaging algorithm for integrating simultaneously recorded EEG and MEG
Jong-Ho Choi, Young-Jin Jung, Hyun-Kyo Jung & Chang-Hwan Im

Regularization of an ill-posed problem in corneal topography
L Plociniczak & W Okrasinski

Submitted by: Helen Gray, Publishing Editor
Mathematics, Statistics & History of Science
Taylor & Francis Group.
4 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN, UK.
Tel: +44 (20) 755 19435
Web: www.tandfonline.com e-mail: helen.gray@tandf.co.uk

Subject: Inverse Problems, Volume 29, Number 10, October 2013

From: <custserv@iop.org>
Date: 9/18/2013

Inverse Problems October 2013 Volume 29, Number 10
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Transmission Eigenvalues

Transmission eigenvalues Fioralba Cakoni and Housseem Haddar

Spectral analysis of the interior transmission eigenvalue problem
Luc Robbiano

Completeness of generalized transmission eigenstates
Eemeli Blåsten and Lassi Päivärinta

Applications of elliptic operator theory to the isotropic interior transmission eigenvalue problem E
Lakshitanov and B Vainberg

Strongly oscillating singularities for the interior transmission eigenvalue problem
Anne-Sophie Bonnet-Ben Dhia and Lucas Chesnel

Transmission eigenvalues for Maxwell's equations in isotropic absorbing media with frequency-dependent electrical parameters
Fabrice Delbary

Transmission eigenvalues for a class of non-compactly supported potentials Esa V Vesalainen

Transmission eigenvalues for dielectric objects on a perfect conductor
Peter Monk and Virginia Selgas

Complex eigenvalues and the inverse spectral problem for transmission eigenvalues David Colton, and Yuk-J Leung

Transmission eigenvalues in one dimension John Sylvester

A computational method for the inverse transmission eigenvalue problem
Drossos Gintides, and Nikolaos Pallikarakis

The inside–outside duality for scattering problems by inhomogeneous media Andreas Kirsch, and Armin Lechleiter

A numerical method to compute interior transmission eigenvalues
Andreas Kleefeld

Computation of Maxwell's transmission eigenvalues and its applications in inverse medium problems Jiguang Sun and Liwei Xu

Asymptotic expansions for transmission eigenvalues for media with small inhomogeneities Fioralba Cakoni and Shari Moskow

Linear sampling method for the heat equation with inclusions
Gen Nakamura and Haibing Wang

Transmission eigenvalues and thermoacoustic tomography
David Finch and Kyle S Hickmann

Online: <http://iopscience.iop.org/0266-5611/29/10/email-alert/1137908735>

Subject: New IPI vol. 7, no. 3 2013 August issue is now available online

From: Susan Cummins <newsletter@aimsciences.org>
Date: 9/23/2013

Inverse Problems and Imaging August 2013 Volume 7, Number 3
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Preface

Raymond H. Chan, Thomas Y. Hou, Hong-Kai Zhao, Haomin Zhou, and Jun Zou

An anisotropic perfectly matched layer method for Helmholtz scattering problems with discontinuous wave number
Zhiming Chen, Chao Liang, and Xueshuang Xiang

Nonlinear stability of the implicit-explicit methods for the Allen-Cahn equation
Xinlong Feng, Huailing Song, Tao Tang, and Jiang Yang

Non-Gaussian dynamics of a tumor growth system with immunization

Mengli Hao, Ting Gao, Jinqiao Duan, and Wei Xu

Nonstationary iterated thresholding algorithms for image deblurring
Jie Huang, Marco Donatelli, and Raymond H. Chan

A local mesh method for solving PDEs on point clouds
Rongjie Lai, Jiang Liang, and Hong-Kai Zhao

A direct sampling method for inverse scattering using far-field data
Jingzhi Li and Jun Zou

Wavelet frame based color image demosaicing
Jingwei Liang, Jia Li, Zuowei Shen, and Xiaoqun Zhang

Recent results on lower bounds of eigenvalue problems by nonconforming finite element methods
Qun Lin and Hehu Xie

How to explore the patch space
Jose-Luis Lisani, Antoni Buades, and Jean-Michel Morel

Video stabilization of atmospheric turbulence distortion
Yifei Lou, Sung Ha Kang, Stefano Soatto, and Andrea L. Bertozzi

A conformal approach for surface inpainting
Lok Ming Lui, Chengfeng Wen, and Xianfeng Gu

Multi-view foreground segmentation via fourth order tensor learning
Michael K. Ng, Chi-Pan Tam, and Fan Wang

Statistical ranking using the l_1 -norm on graphs
Braxton Osting, Jerome Darbon, and Stanley Osher

A texture model based on a concentration of measure
Hayden Schaeffer, John Garnett, and Luminita A. Vese

3D adaptive finite element method for a phase field model for the moving contact line problems
Yi Shi, Kai Bao, and Xiao-Ping Wang

Three steps on an open road
Gilbert Strang

Energy conserving local discontinuous Galerkin methods for wave propagation problems
Yulong Xing, Ching-Shan Chou, and Chi-Wang Shu

The single-grid multilevel method and its applications
Jinchao Xu

General convergent expectation maximization (EM)-type algorithms for image reconstruction
Ming Yan, Alex A. T. Bui, Jason Cong, and Luminita A. Vese

Fast total variation wavelet inpainting via approximated primal-dual hybrid gradient algorithm
Xiaojing Ye and Haomin Zhou

The Gaussian beam method for the wigner equation with discontinuous potentials
Dongsheng Yin, Min Tang, and Shi Jin

A fast modified Newton's method for curvature based denoising of 1D signals
Andy M. Yip and Wei Zhu

Four color theorem and convex relaxation for image segmentation with any number of regions

Ruiliang Zhang, Xavier Bresson, Tony F. Chan, and Xue-Cheng Tai

Online: <http://aimsciences.org/journals/contentsListnew.jsp?pubID=621>

Submitted by: Susan Cummins

Publication Editor, American Institute of Mathematical Sciences

Springfield, MO 65801 USA Phone: 417-987-6421

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

Today's Topics:

Conference: Inverse Problems from Theory to Application (IPTA 2014)

Conference: ICIPE 2014 Abstract Deadline Extended

Faculty Positions at HKBU: Areas include Imaging Sciences, Optimization

Faculty Position at Emory: Computational Math (Numerical Optimization)

Postdoctoral Positions at MIT: Areas include Inverse Problems, Imaging

Postdoctoral Position at IBM Singapore: Areas include Inverse Problems

Postdoctoral Position at UC Davis: Areas include Compressive Sensing

Special Inverse Problems Issue: Bayesian methods in Inverse Problems

Table of Contents: Journal of Inverse and Ill-Posed Problems

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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: IPTA 2014: Inverse Problems from Theory to Application Conference

From: Leanne Mullen <Leanne.Mullen@iop.org>

Date: 10/14/2013

IPTA 2014, hosted by the journal Inverse Problems, will be held in Bristol at the science museum At-Bristol on 26-28th August 2014. This conference represents a new forum to disseminate interdisciplinary inverse problems research and to facilitate increased engagement and collaboration within the international community.

The scientific committee, Professor Alfred K Louis, Professor Simon Arridge and Professor Bill Rundell, have organised a diverse scientific programme which combines mathematical and experimental work with theoretical, numerical and practical approaches to solving inverse problems. As well as supporting the applied mathematics community, the conference will also encompass a plethora of applications including the physical sciences, engineering, geophysics, optics, biology, acoustics, communication theory, signal processing and imaging. We are looking forward to welcoming you to Bristol in 2014!

Registration opens 2nd January 2014.

<http://ipta2014.iopconfs.org>

Subject: ICIPE 2014 Abstract Deadline Extended

From: Inverse Problems [<info@inverseproblems.org>](mailto:info@inverseproblems.org)

Date: 10/8/2013

Abstract Deadline Extended!

Due to technical issues with the abstract submission site on the original deadline, the FINAL deadline for abstract submission has been revised. The new, and final, deadline is November 4, 2013. We have a great number of abstracts in hand but look forward to receiving your contribution.

8th International Conference on Inverse Problems in Engineering (ICIPE2014).

Conference Website: <http://www.icipe2014.org>

The conference will be held on May 12-15, 2014, Cracow, Poland.

ICIPE2014 is the continuation of the conference series which began in Palm Coast, FL, USA, in 1993.

Timetable

Abstract submission deadline: November 4, 2013

Abstract acceptance notification: TBA

Paper submission deadline: February 1, 2014

Paper acceptance notification: March 15, 2014

Final paper submission deadline: April 12, 2014

Conference start: May 12, 2014

Contact

If you have any further queries, please do not to hesitate to contact us.

Organizer Email: icipe2014@icipe2014.org

You can also find out us on a Conference Facebook profile (ICIPE2014) or on a Twitter (@ICIPE2014).

We look forward to seeing you in Cracow,

Yours sincerely,

Ireneusz Szczygiel, Conference Chair

Andrzej J. Nowak, Conference Co-Chair

James V. Beck, Honorary Conference Chair

Keith A. Woodbury, ICIPE Steering Committee
Marek Rojczyk, Conference Secretary

[This submission has been edited to reflect recent deadline updates on the conference website. -Ed.]

Subject: Assistant/Associate/Full Professor Positions, MATH HKBU

From: Michael Ng <mng@math.hkbu.edu.hk>

Date: 10/2/2013

Assistant/Associate/Full Professor Positions, MATH HKBU

The Department of Mathematics, Hong Kong Baptist University with strong commitment in first-class research and nurturing high-quality students, now invites applications for a Professor/Associate Professor/Assistant Professor. We are seeking exceptionally qualified candidates with expertise in areas including, but not limited to, imaging sciences, optimization, numerical analysis and scientific computing.

A Ph.D. in Applied Mathematics or a related scientific field, demonstrated excellence in research and teaching, are required. For more information, please contact Michael Ng (mng@math.hkbu.edu.hk) or Tao Tang (ttang@math.hkbu.edu.hk).

To apply for the position: please visit and submit the application form http://pers.hkbu.edu.hk/job_details.php?page_id=6&job_id=1925

Subject: Faculty Position, Computational Math, Emory University

From: James Nagy <nagy@mathcs.emory.edu>

Date: 10/16/2013

The Department of Mathematics & Computer Science at Emory University invites applications for a tenure-track faculty position in Computational Mathematics. Appointments are expected to be at the Assistant Professor level in the area of numerical optimization; senior candidates may be considered for truly outstanding cases. Applicants must demonstrate exceptional research ability, and have a PhD in Mathematics, Computer Science, or a closely related field. Applicants should also have strong records, or promise, as

undergraduate and graduate teachers. Ideal candidates will have interdisciplinary interests that complement and enhance current research strengths in numerical linear algebra, networks, inverse problems, numerical partial differential equations, and computational fluid dynamics.

Applications consisting of a CV, research and teaching statements, and three letters of recommendation directly from recommenders can be submitted via Mathjobs.org, or can be sent via email to cmsearch2014@mathcs.emory.edu. Informal inquiries are also invited by email. Screening starts December 1, 2013. Applications received by December 31, 2013, will receive a full review. Please note that appointments are subject to final funding approval. For additional information about the department, please see: <http://www.mathcs.emory.edu>

Emory University is an Equal Opportunity/Affirmative Action employer. Women and underrepresented minorities are encouraged to apply.

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

Subject: Postdoc openings at MIT

From: Laurent Demanet <laurent@math.mit.edu>
Date: 10/2/2013

The Imaging and Computing group in the Department of Mathematics at MIT invites applications for two postdoctoral positions. The areas of interest to the group include computational wave propagation, optimization, inverse problems, applied harmonic analysis, sparse and low-rank recovery, uncertainty quantification, fast algorithms, seismic and radar imaging.

All the details are at <http://math.mit.edu/icg/openings/>

Subject: Post-doctoral position available at IBM Research Collaboratory - Singapore

From: Laura Wynter <lwynter@us.ibm.com>
Date: 10/21/2013

IBM Research Collaboratory in Singapore welcomes qualified post-doctoral

candidates to apply for a fellowship starting as early as January 2014.

The successful candidate will be working on the 'next generation' of real-time analytics leveraging massive multimedia and unstructured datasets (such as cognitive computing).

We welcome applications from candidates with background experience in optimal control, inverse problems, data assimilation, or machine learning, who feel that their experience will assist in the development of online operational analytics across multiple application areas from transportation to environmental sensing.

The position involves working with an international research team developing models and algorithms for real-time analytics. The position involves both innovative research and writing articles as well as significantly contributing to real-world client projects. There is a component of the position that involves programming, and experience in Java is preferred. However, the position is not primarily a programming position.

Salary and benefits are very competitive. The actual salary is determined by the IBM Research Human Resources department and cannot be provided ahead of an offer being made to the candidate. But, it can be expected that the salary and benefits will be very attractive, as compared to academic positions and to other positions in industry.

The position is for one year and can be renewed up to two more years based on mutual agreement. As such, this is a duration-limited position. Of the postdoctoral researchers at IBM Research, some are converted to permanent, non-duration-limited, positions during the course of their postdoctoral fellowship. However, no guarantee of such conversion can be made ahead of time.

We are actively recruiting for this position now and wish to fill at least one position soon, but regardless of your availability date, we encourage you to apply to the position, as it is possible for multiple positions to become available during the course of 2014. Therefore, while there is a preference given to candidates who are available to start early in 2014, all qualified and interested candidates should apply.

Cognitive computing is an exciting area of research within IBM and if this position appeals to you,

please send a recent CV and please have 1 or 2 recommendation letters emailed directly to

Dr. Sebastien Blandin, at sblandin@sg.ibm.com.

Subject: Post-doctoral position available at University of California, Davis

From: Thomas Strohmer <strohmer@math.ucdavis.edu>

Date: 10/23/2013

POST-DOCTORAL POSITION IN MATHEMATICS University of California, Davis

The Department of Mathematics at the University of California, Davis, is soliciting applications for a Postdoctoral Scholar position with a starting date between March 2014 and October 2014.

To be considered for the Postdoctoral Scholar position, the Department seeks applicants with a strong knowledge base in Sparse Approximations, Compressive Sensing, Numerical Algorithms and/or Optimization. A Ph.D. in Mathematics or the equivalent is required by August 31, 2014. The position requires working on research related to a defense-based project (sponsored by DTRA/NSF), led by Professor Thomas Strohmer. The research is concerned with developing theory and algorithms for phase retrieval, hyper spectral imaging, and signal recovery in connection with threat detection. The candidate should also have excellent programming skills in Matlab. The annual salary of this position is \$60,000, plus some travel funds. The position carries no teaching duties the first two years, but teaching may be possible upon request. The third year may be a 9-month position with 50% teaching and 50% research. The appointment is renewable for a total of up to three years, assuming satisfactory performance. The UC Davis Math and Applied Math programs have been ranked among the nation's top programs by the National Research Council in its most recent report.

Additional information about the Department may be found at <https://www.math.ucdavis.edu/>. Our postal address is Department of Mathematics, University of California, One Shields Avenue, Davis, CA 95616-8633. Applications will be accepted until the positions are filled. To guarantee full consideration, the application should be received by December 15, 2013 by submitting the AMS Cover Sheet and supporting documentation electronically through <http://www.mathjobs.org/>. The University of California is an affirmative action/equal opportunity employer.

Subject: Bayesian methods in inverse problems special issue to be published in Inverse Problems

From: Leanne Mullen <Leanne.Mullen@iop.org>

Date: 10/29/2013

Inverse Problems is pleased to announce the following upcoming 2014 special issue

entitled 'Bayesian methods in inverse problems'.

This special issue aims at bringing together articles in which the common theme is the use of Bayesian statistics to analyse measurements and to infer unknown quantities of interest, including Monte Carlo sampling methods and Bayesian filtering of dynamical models. The topic is closely related to the increasingly important uncertainty quantification, Bayesian methods providing a viable and fruitful way of expressing lack of information in terms of probability densities. Application areas include, but are not limited to, biomedical engineering and imaging, geophysics, hydrology, astronomy, oceanography and atmospheric sciences, chemistry, epidemiology, modelling of complex biological systems, and the economy. The guest editors are Daniela Calvetti and Erkki Somersalo (Case Western Reserve University) and Jari Kaipio (University of Auckland and University of Eastern Finland).

This special issue is now open for submissions. We also kindly ask you to distribute this call among all colleagues who might be interested in submitting their work.

We invite you to submit your manuscript via <http://mc04.manuscriptcentral.com/ip-iop>.

The closing date for submissions is 3rd March 2014.

Submitted by: Dr Leanne Mullen, Publishing Editor. Inverse Problems
IOP Publishing, Temple Circus, Temple Way, Bristol, BS1 6HG
Tel: +44 (0)117 930 1842 E-mail: Leanne.Mullen@iop.org
<http://iopscience.iop.org/>

Subject: Table of Contents: 'Journal of Inverse and Ill-Posed Problems'

From: [<noreply@degruyter.com>](mailto:noreply@degruyter.com)

Date: 10/1/2013

Journal of Inverse and Ill-Posed Problems Oct 2013 Volume 21, Issue 5
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Conservation laws in differential geometry of plane curves and for eikonal equation
and inverse problems Megrabov, Alexander G.

On a shape design problem for one spectral functional
Gasimov, Yusif S.

An adjoint method for proving identifiability of coefficients in parabolic
equations DuChateau, Paul

Semismooth Newton and quasi-Newton methods in weighted l_1 -regularization
Muoi, Pham Quy / Hào, Dinh Nho / Maass, Peter / Pidcock, Michael

On the iterative inversion of generalized attenuated Radon transforms
Miqueles, Eduardo X. / De Pierro, Alvaro R.

This issue of 'Journal of Inverse and Ill-Posed Problems' is now available online from De Gruyter Online:

<http://www.degruyter.com/view/j/jip.2013.21.issue-5/issue-files/jip.2013.21.issue-5.xml>

[Note: The list of contents for Volume 21, Issue 6, of this journal was given in IPNet Digest Vol. 20, No. 8, available

at: http://janus.math.msu.edu/ipnet/ipnet_archive/digests/Digest_v20n08.pdf
-Ed.]

Subject: Inverse Problems, Volume 29, Number 11, November 2013

From: [<custserv@iop.org>](mailto:custserv@iop.org)

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Stability estimates for the unique continuation property of the Stokes system and for an inverse boundary coefficient problem
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Carleman estimate and inverse source problem for Biot's equations describing wave propagation in porous media
Mourad Bellassoued and Masahiro Yamamoto

Multi-sheet surface rebinning methods for reconstruction from asymmetrically truncated cone beam projections: I. Approximation and optimality
Marta M Betcke and William R B Lionheart

Multi-sheet surface rebinning methods for reconstruction from asymmetrically truncated cone beam projections: II. Axial deconvolution
Marta M Betcke and William R B Lionheart

The factorization method for inverse elastic scattering from periodic structures
Guanghai Hu, Yulong Lu and Bo Zhang

Inverse problem of electro-seismic conversion Jie Chen and Yang Yang

On multiple frequency power density measurements Giovanni S Alberti

On a continuation approach in Tikhonov regularization and its application in piecewise-constant parameter identification V Melicher and V Vrábel'

Augmented projections for ptychographic imaging

Stefano Marchesini, Andre Schirotzek, Chao Yang, Hau-tieng Wu and Filipe Maia

On the inversion of the Radon transform on a generalized Cormack-type class of curves G Rigaud

Shape optimization methods for the inverse obstacle problem with generalized impedance boundary conditions

Fabien Caubet, Marc Dambrine and Djalil Kateb

Inverse spectral analysis for the transmission eigenvalue problem

Guangsheng Wei and Hong-Kun Xu

Total variation regularization for a backward time-fractional diffusion problem Liyan Wang and Jijun Liu

A geometric approach to joint inversion with applications to contaminant source zone characterization

Alireza Aghasi, Itza Mendoza-Sanchez, Eric L Miller, C Andrew Ramsburg and Linda M Abriola

The factorization method for the acoustic transmission problem

Konstantinos A Anagnostopoulos, Antonios Charalambopoulos and Andreas Kleefeld

Corrigendum: Efficient gradient projection methods for edge-preserving removal of Poisson noise R Zanella, P Boccacci, L Zanni and M Bertero

<http://iopscience.iop.org/0266-5611/29/11>

Subject: Table of Contents, Nonlinear Analysis: Modelling and Control

From: Romas Baronas <romas.baronas@mif.vu.lt>

Date: 10/16/2013

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Pulsating flow of an incompressible micropolar fluid between permeable beds
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Numerical solution of nonlinear elliptic equation with nonlocal condition
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Weaker cyclic (φ , ϕ)-contractive mappings with an application to integro-differential equations
Hemant Kumar Nashine, Zoran Kadelburg

A survey of models for inference of gene regulatory networks
Blagoj Ristevski

Common fixed point theorems on non-complete partial metric spaces
Shaban Sedghi, Nabi Shobkolaei, Ishak Altun

Multi-objective optimization aided to allocation of vertices in aesthetic drawings of special graphs
Audrius Varoneckas, Antanas Zilinskas, Julius Zilinskas

Existence and uniqueness of solutions for a singular system of higher-order nonlinear fractional differential equations with integral boundary conditions
Lin Wang, Xingqiu Zhang, Xinyi Lu

A note on the max-sum equivalence of randomly weighted sums of heavy-tailed random variables
Yang Yang, Kaiyong Wang, Remigijus Leipus, Jonas Siaulyš

Spatiotemporal chaos in Arnold coupled logistic map lattice
Ying-Qian Zhang, Xing-Yuan Wang

A free on-line edition is available at: <http://www.mii.lt/NA/>

Submitted by: Dr. Romas Baronas, Deputy-Editor-in-Chief,
Nonlinear Analysis: Modelling and Control, <http://www.mii.lt/NA/>
----- end -----

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

Today's Topics:

Conference: First Gordon Research Conference on Image Science

Faculty Position at Tufts: Scientific Computing, Areas include Inverse Problems

Table of Contents: Inverse Problems in Science and Engineering

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Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

Subject: Information for posting regarding First Gordon Research Conference
on Image Science: June 8-13, 2014

From: GRC 2014 Conference <ImageScience2014GRC@fda.hhs.gov>

Date: 11/14/2013 8:55 PM

The first Gordon Research Conference (GRC) on Image Science will be held from June 8-13, 2014, at Stonehill College in Easton, MA, U.S.A. Applications are being accepted now at the meeting website:

<http://www.grc.org/programs.aspx?year=2014&program=imagesci>

The program will be absolutely first-rate, featuring an international collection of world-leading scientists engaged in Image Science research across imaging disciplines. The meeting format is designed to maximize productive interactions and development of collaborations. Attendance will be capped at 200. All attendees will have the opportunity to present original research in a set of poster sessions. Only unpublished research at the absolute frontier of knowledge is to be presented (both orally and in poster sessions), with an emphasis on extended discussion. To promote the discussion of cutting-edge research, GRCs are officially "off-the-record", with no abstracts or proceedings published before, during, or after the conference, and ample time is provided between sessions for socializing and informal discussions with fellow attendees.

We are proud and excited to be the organizers of this first GRC on Image Science. We hope you will plan to attend!

Kyle J. Myers
Chair
CDRH/FDA

Richard G. Paxman
Vice-Chair
General Dynamics --Advanced Information Systems

Subject: Tufts Univ. Tenure Track Asst. Professor Position, Scientific Computing

From: "Kilmer, Misha E" <Misha.Kilmer@tufts.edu>

Date: 11/18/2013

TUFTS UNIVERSITY, DEPARTMENT OF MATHEMATICS
Tenure Track Assistant Professor Position
Scientific Computing

Applications are invited for a tenure-track assistant professor position in Scientific Computing, to begin September 1, 2014. Applicants must hold a doctorate by the beginning of the appointment, and must show promise of outstanding research in the area of Scientific Computing. Potential for excellence in college-level teaching also required. Preference will be given to candidates who show strong potential for interaction with existing applied mathematics research efforts in the department, including computational PDEs, computational neuroscience, numerical linear algebra, computational fluid dynamics, and inverse problems.

Applications should include a cover letter, curriculum vitae, a research statement, and a teaching statement. These documents should be submitted electronically through <http://www.mathjobs.org>. In addition, applicants should arrange for three letters of recommendation to be submitted electronically on their behalf through <http://www.mathjobs.org>. If a recommender cannot submit online, we will also accept signed PDF attachments sent to Christoph.Borgers@tufts.edu or paper letters mailed to SC Search Committee Chair, Department of Mathematics, Bromfield-Pearson Hall, Tufts University, Medford, MA 02155.

Review of applications will begin on December 15, 2013 and will continue until the position is filled.

Tufts University is an Affirmative Action / Equal Opportunity employer. We are committed to increasing the diversity of our faculty. Members of underrepresented groups are strongly encouraged to apply.

Subject: Table of Contents for IPSE in IPNet Digest

From: "Gray, Helen" <Helen.Gray@tandf.co.uk>

Date: 11/19/2013 8:22 AM

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2013

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Numerical reconstruction of unknown boundary data in the Cauchy problem for Laplace's equation Balgaisha Mukanova

Equivalent ultrasonic impedance in multilayer media. A parameter estimation problem
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Drift reconstruction from first passage time data using the Levenberg–Marquardt method Pak-Wing Fok

Rapid identification of material properties of the interface tissue in dental implant systems using reduced basis method
K.C. Hoang, B.C. Khoo, G.R. Liu, N.C. Nguyen & A.T. Patera

On the optimum synthesis of a microconveyor platform for micropart translocation using differential evolution Mohsin Rizwan & Panos S. Shiakolas

Application of simulated annealing in a rectangular fin with variable heat transfer coefficient
Ranjan Das & K.T. Ooi

Numerical reconstruction in a three-spectra inverse Sturm–Liouville problem with mixed boundary conditions Mihaela-Cristina Drignei

Crack identification in beams using Hilbert transform, kurtosis and mode shape rotation deviation curve
H. Kucukgoncu & K. Aydin

Corrigendum

Application of simulated annealing in a rectangular fin with variable heat transfer coefficient
Ranjan Das & K.T. Ooi

The latest issue of Inverse Problems in Science and Engineering (Volume 21, Issue 8) is now available online at: <http://www.tandfonline.com/toc/gipe20/current>

Submitted by: Helen Gray, Publishing Editor
Mathematics, Statistics & History of Science
Taylor & Francis Group.
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Tel: +44 (20) 755 19435 Web: www.tandfonline.com
e-mail: helen.gray@tandf.co.uk

Subject: Inverse Problems, Volume 29, Number 12, December 2013

From: [<custserv@iop.org>](mailto:custserv@iop.org)

Date: 11/26/2013 8:25 AM

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Volume 29, Number 12

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On one-dimensional inverse problems arising from polarimetric measurements of nematic liquid crystals

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Carlos Montalto and Plamen Stefanov

Experimental validation of the topological sensitivity approach to elastic-wave imaging

Roman Tokmashev, Antonin Tixier, and Bojan B Guzina

Adaptive tight frame based medical image reconstruction: a proof-of-concept study for computed tomography

Weifeng Zhou, Jian-Feng Cai, and Hao Gao

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Photoacoustic tomography in a rectangular reflecting cavity

L Kunyansky, B Holman, and B T Cox

Posterior consistency for Bayesian inverse problems through stability and regression results

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Doubling inequalities for anisotropic plate equations and applications to size estimates of inclusions

M Di Cristo, C-L Lin, A Morassi, E Rosset, S Vessella, and J-N Wang

On the filtering effect of iterative regularization algorithms for discrete inverse problems

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Numerical inversion of the Funk transform on the rotation group Ralf Hielscher

Compressed sensing in imaging mass spectrometry

Andreas Bartels, Patrick Dülk, Dennis Trede, Theodore Alexandrov, and Peter Maaß

Issue available at: <http://iopscience.iop.org/0266-5611/29/12>

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