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

Today's Topics:

Symposium Update: 28th Inverse Problems Symposium 2015
Research Fellowship: Computational Imaging and Modelling
Postdoctoral Position: Sparse Approximations, Compressive Sensing,
etc.

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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>

From: "Dolan, Kirk" <dolank@msu.edu>
Date: December 31, 2014
Subject: 28th Inverse Problems Symposium 2015

You are invited to submit an abstract for the 28th Inverse Problems Symposium 2015.

Website: <http://www.inverseproblems2015.org/>

Conference will be held May 31-June 2, 2015, Michigan State University, East Lansing, MI.

Timetable:

- Abstract submission opens: January 7, 2015
- Registration opens: February 5, 2015
- Abstract acceptance notification: April 1, 2015
- Early registration closes: May 1, 2015

Contact:

Kirk Dolan, Conference Chair
Keith Woodbury, Conference Co-Chair
James Beck, Conference Honorary Chair

We look forward to seeing you in East Lansing.

Submitted by: Kirk Dolan, Associate Professor
Department of Food Science & Human Nutrition
Department of Biosystems & Agricultural Engineering
135 Trout Food Science Building, Michigan State University
East Lansing, MI 48824
Phone: 517-353-3333 Fax: 517-353-8963

From: Alejandro Frangi <a.frangi@sheffield.ac.uk>
Date: December 6, 2014
Subject: Sheffield VC's Fellowship Programme

Do you have a ground-breaking proposal at the interface where computational imaging and modelling meet?

The Center for Computational Imaging and Simulation Technologies in Biomedicine (CISTIB) at the University of Sheffield welcomes you to a vibrant environment where you will have the space and support needed within a world-class centre. The Vice-Chancellor's Fellowship Programme

can provide you with the funding for the independence you need. Just talk to us!

The University of Sheffield is a world top-100 university, renowned for its research and for shaping leading minds across the world. The Vice-Chancellor's Fellowship programme supports exceptional early-career researchers who have the potential to be leaders of the future. This four-year prestigious Fellowship will lead to a permanent (tenured) academic position.

If you have a ground-breaking research proposal, ambition, and an outstanding track record read more about the University and follow our instructions on how to apply.

www.sheffield.ac.uk/ris/vcfellows/vcf2015

If your area of interest is at the interface between computational imaging and modelling, then the Center for Computational Imaging and Simulation Technologies in Biomedicine (CISTIB) can provide you with the context, support, yet independence you need to explore your ideas.

Please, talk to us to explore possibilities.

Alejandro Frangi (a.frangi@sheffield.ac.uk)

Zeike Taylor (z.a.taylor@sheffield.ac.uk)

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

Date: December 2, 2014

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

POST-DOCTORAL POSITION IN MATHEMATICS University of California, Davis

The Department of Mathematics is soliciting applications for a Postdoctoral Scholar position with a starting date between March 2015 and October 2015.

To be considered for the position, the Department seeks applicants with a strong knowledge base in Sparse Approximations, Compressive Sensing, Numerical Algorithms, and/or Optimization. Applicants must have completed their Ph.D. 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 high-dimensional data analysis, imaging and signal recovery in connection with threat detection. The candidate should also have excellent programming skills in Matlab. The annual salary will be \$50K. Salary is negotiable based on experience and funding available. The Postdoc may be asked to teach one or two courses depending on experience and the Mathematics department needs. The appointment is renewable for a total of up to two years, assuming satisfactory performance. A US-Citizenship is not required.

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 "<http://www.math.ucdavis.edu/>" <http://www.math.ucdavis.edu/>.

Applications will be accepted until the positions are filled. To guarantee full consideration, the application should be received by December 30, 2014 by submitting the AMS Cover Sheet and supporting documentation electronically through

<http://www.mathjobs.org/> (see also
<https://www.mathjobs.org/jobs/jobs/6810>).

The University of California, Davis, is an affirmative action/equal opportunity employer and is dedicated to recruiting a diverse faculty community. We welcome all qualified applicants to apply, including women, minorities, individuals with disabilities, and veterans.

From: <noreply@iopscience.org>

Date: December 2, 2014

Subject: Inverse Problems, Volume 30, Number 12, December 2014

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Seismic tomography is locally ill-posed
Andreas Kirsch, and Andreas Rieder

Polarization tomography for residual stress measurements in a hexagonal single crystal
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Valeriya Naumova, and Steffen Peter

Reconstruction of constitutive parameters in isotropic linear elasticity from noisy full-field measurements
Guillaume Bal, Cédric Bellis, Sébastien Imperiale, and François Monard

Lipschitz continuous dependence of piecewise constant Lamé coefficients from boundary data: the case of non-flat interfaces
Elena Beretta, Elisa Francini, Antonino Morassi, Edi Rosset, and Sergio Vessella

Time reversal in photoacoustic tomography and levitation in a cavity
V P Palamodov

Nonstationary analogue black holes
Gregory Eskin

Exact determination of the volume of an inclusion in a body having constant shear modulus
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Virtual resistive network and conductivity reconstruction with Faraday's law
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A projection-based approach to diffraction tomography on curved boundaries
Gregory T Clement

A model reduction approach to numerical inversion for a parabolic partial differential equation
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Forward-backward splitting method for quantitative photoacoustic tomography

Xue Zhang, Weifeng Zhou, Xiaoqun Zhang, and Hao Gao

Inverse problem for a one-dimensional dynamical Dirac system (BC-method)

M I Belishev, and V S Mikhailov

Regularized solution of a nonlinear problem in electromagnetic sounding

Gian Piero Deidda, Caterina Fenu, and Giuseppe Rodriguez

The soft x-ray transform

Joanna Klukowska, Gabor T Herman, Joaquin Otón, Roberto Marabini, and José-María Carazo

From: <noreply@degruyter.com>

Date: December 2, 2014

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

Journal of Inverse and Ill-posed Problems December 2014 Volume 22,
Issue 6

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Reconstructing conductivities with boundary corrected D-bar method
Siltanen, Samuli / Tamminen, Janne P.

Regularization of linear inverse problems with total generalized
variation

Bredies, Kristian / Holler, Martin

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

Today's Topics:

Workshop: Recent Developments in Inverse Problems, Weierstrass Institute

Cluster Hiring: Faculty Openings in Integrated Imaging

Associate Professorship: Applied Mathematics, Medical Image Processing

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Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: Guanghui Hu <hu@wias-berlin.de>

Subject: Workshop on Recent Developments in Inverse Problems, Weierstrass Institute, Berlin, September 17-18, 2015.

Date: January 6, 2015 at 10:04:56 AM PST

Recent Developments in Inverse Problems, Weierstrass Institute, Berlin, September 17-18, 2015.

Our workshop will bring together experts from the German and international 'Inverse Problems Community' and young scientists. The focus will be on ill-posedness phenomena, regularization theory and practice, and on the analytical, numerical and stochastic treatment of applied inverse problems from natural sciences, engineering and finance. This is the continuation of the 'Chemnitz Symposium on Inverse Problems' in 2015 (Chemnitz Symposium on Tour). The previous three symposia were held in Chemnitz (2014), Shanghai (2013) and Canberra (2012).

The registration form will be available in January 2015. We are now looking for contributed talks. The deadline for submitting abstracts will be April 30, 2015. The confirmation of contributed talks will be notified before May 31, 2015. More details can be found at the workshop homepage:

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

We look forward to seeing you in Berlin !

Submitted by: Dr. Guanghui Hu

Research Group "Nonlinear Optimization and Inverse Problems"

Weierstrass Institute

Address: Mohrenstrasse 39 10117 Berlin, Germany

Office: Mohrenstrasse 39, room 505 Tel: ++49 (0) 30 20372 538

Email: Guanghui.Hu@wias-berlin.de URL: <http://www.wias-berlin.de/~hu/?lang=1>

From: "Stefanov, Plamen D" <stefanop@purdue.edu>

Subject: cluster hiring at Purdue

Date: January 27, 2015

Purdue University College of Engineering and College of Science

Faculty Openings in Integrated Imaging

https://engineering.purdue.edu/Engr/InfoFor/Employment/JobDescriptions/62/Integrated%20Imaging%20Position%20Description_revised_9_28_12.pdf

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

From: Jan Modersitzki <jan.modersitzki@mic.uni-luebeck.de>
Subject: W2 applied mathematics at Lübeck, opening
Date: January 19, 2015

Dear colleague,

The Institute of Mathematics and Image Computing at the University of Lübeck has an opening for an associate professorship position (W2) in applied mathematics; for a formal description (in German) see http://www.uni-luebeck.de/fileadmin/uzl_sekmint/Ausschreibung-W2-Angew._Mathematik.pdf.

The Institute of Mathematics and Image Computing is bridging the Stiftungsuniversität zu Lübeck and Fraunhofer MEVIS, part of the Fraunhofer-Gesellschaft, which is Europe's biggest organization of applied research. Therefore, applicants are expected to have achieved outstanding accomplishments in research at international level in a relevant field of applied mathematics with a strong affinity to biomedical applications. Preference will be given to candidates with expertise in the disciplines of partial differential equations, optimization or image processing. Experience in acquiring industrial and external funds as well as a strong interest in mathematical problems related to medical image processing are beneficial. Candidates are expected to lecture; a requirement is the ability to teach in German after no more than three years of tenure.

I would appreciate if you would pass on this information to potential candidates.

Kind regards,
Prof. Dr. Jan Modersitzki
Director
Universität zu Lübeck
Institute of Mathematics and Image Computing
Tel +49 451 2903-514 Fax +49 451 2903-511
E-Mail jan.modersitzki@mic.uni-luebeck.de www.mic.uni-luebeck.de
Maria-Goeppert-Str. 3 23562 Lübeck

From: <noreply@iopscience.org>
Subject: Inverse Problems, Volume 31, Number 1, January 2015
Date: January 6, 2015 at 7:19:27 AM PST

Inverse Problems January 2015 Volume 31, Number 1
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Editorial

Publisher's announcement Chris Wileman

Papers:

Joint reconstruction of PET-MRI by exploiting structural similarity
Matthias J Ehrhardt, Kris Thielemans, Luis Pizarro, David Atkinson,
Sébastien Ourselin, Brian F Hutton, and Simon R Arridge

Cancellation of singularities for synthetic aperture radar
Peter Caday

Corners and edges always scatter
Johannes Elschner, and Guanghui Hu

Identification results for inverse source problems in unsteady Stokes
flows
Nuno F M Martins

Inverse problems for stochastic transport equations
Dan Crisan, Yoshiki Otake, and Szymon Peszat

Inversion formulas for cone transforms arising in application of Compton
cameras
Chang-Yeol Jung, and Sunghwan Moon

A convergence rates result for an iteratively regularized Gauss-Newton-
Halley method in Banach space
B Kaltenbacher

Lipschitz stability for the inverse conductivity problem for a conformal
class of anisotropic conductivities
Romina Gaburro, and Eva Sincich

Fast Kalman filter using hierarchical matrices and a low-rank
perturbative approach
Arvind K Saibaba, Eric L Miller, and Peter K Kitanidis

<http://iopscience.iop.org/0266-5611/31/1/email-alert/1142178116>

From: <noreply@degruyter.com>
Subject: Table of Contents: 'Journal of Inverse and Ill-posed Problems'
Date: February 1, 2015 at 2:17:57 PM PST

Journal of Inverse and Ill-posed Problems February 2015 Volume 23,
Issue 1

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Inverse problems for linear degenerate parabolic equations by "time-like"
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Spectral problems and scattering on noncompact star-shaped graphs
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Stability estimates for Burgers-type equations backward in time
Hào, Dinh Nho / Duc, Nguyen Van / Thang, Nguyen Van

A Hölder-logarithmic stability estimate for an inverse problem in two
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Santacesaria, Matteo

On convergence rates for iteratively regularized Newton-type methods
under a Lipschitz-type nonlinearity condition
Werner, Frank

Identification of an unknown spatial load distribution in a vibrating
cantilevered beam from final overdetermination
Hasanov, Alemdar / Baysal, Onur

[http://www.degruyter.com/view/j/jiip.2015.23.issue-1/issue-
files/jiip.2015.23.issue-1.xml](http://www.degruyter.com/view/j/jiip.2015.23.issue-1/issue-files/jiip.2015.23.issue-1.xml)
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Today's Editor: Patricia (Patti) K. Lamm, Michigan State University

Today's Topics:

Registration Open: Inverse Problems Symposium 2015

Postdoc Positions: Compressive Imaging in Astronomy and Medicine

Research Associate: Image Analytics in Large-Scale Databases in Biomedicine

Postdoc: Perfusion/Diffusion MRI Modeling, MR Signal Formation

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Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: "Dolan, Kirk" <dolank@msu.edu>

Date: February 26, 2015

Subject: IPS 2015 Registration

Registration is open for Inverse Problems Symposium 2015.

Website: <http://www.inverseproblems2015.org/>?

Conference will be held May 31-June 2, 2015, Michigan State University, East Lansing, MI.?

Important dates:

- Abstract submission closes: March 18th, 2015
- Abstract acceptance notification: April 1, 2015
- Early registration closes: May 1, 2015

?

Contact: ?

Kirk Dolan, Conference Chair?

Keith Woodbury, Conference Co-Chair?

James Beck, Conference Honorary Chair? ?

We look forward to seeing you in East Lansing.

Submitted by: Kirk Dolan, Associate Professor

Department of Food Science & Human Nutrition

Department of Biosystems & Agricultural Engineering

135 Trout Food Science Building, Michigan State University, E. Lansing, MI 48824

Phone: 517-353-3333

Fax: 517-353-8963

From: "Wiaux, Yves" <Y.Wiaux@hw.ac.uk>

Date: February 9, 2015

Subject: Four postdocs at BASP Edinburgh

Dear All

BASP Edinburgh currently has multiple (4) postdoc positions open on compressive imaging in astronomy and medicine [CS theory, sparse

reconstruction algorithms, MR imaging (MRF...), Astro imaging (radio interferometry)].

Details on positions can be found directly from the BASP group website <http://basp.eps.hw.ac.uk> or on researchgate.

Please do not hesitate to disseminate

Best regards,

Dr Yves Wiaux, Assoc. Prof., BASP Director
Institute of Sensors, Signals & Systems
School of Engineering & Physical Sciences
Heriot-Watt University, Edinburgh
basp.eps.hw.ac.uk

From: Alejandro Frangi <a.frangi@sheffield.ac.uk>
Date: February 12, 2015
Subject: Research Associate in Image Analytics in Large-scale Databases

Research Associate in Image Analytics in Large-scale Databases for
Efficient Construction of Personalised Fluid Transport Multiphysics Brain
Models

University of Sheffield - Department of Electronic and Electrical
Engineering

This post offers an exciting opportunity to join the highly successful Centre for Computational Imaging and Simulation Technologies in Biomedicine (CISTIB) www.cistib.org within the Department of Electronic and Electrical Engineering at the University of Sheffield. CISTIB is working at the interface between different areas of computational imaging and modelling: medical image analysis, statistical shape analysis, machine learning, image-based computational physiology, and personalised virtual interventions. The Centre hosts academic members from the University of Sheffield as well as Research Fellows, Research Associates, PhD Students and Scientific Software Developers forming a cross-disciplinary team with affiliation in the Electronic and Electrical Engineering and Mechanical Engineering Departments.

The Centre has had significant recent funding success in the area of dementia via the European Commission-funded VPH-DARE@IT (www.vph-dare.eu) and the EPSRC-funded OCEAN (www.ocean-mri.org) projects. This post will be associated to the VPH-DARE@IT project. In this project and post, CISTIB seeks to develop image analysis tools to build personalised biomechanical models of fluid transport in the brain in collaboration with other groups across Europe.

We are seeking a Research Associate who will contribute to development of methods for highly-automated and robust construction of image-based biomechanical models of the brain and its vasculature from large-scale databases of medical images. The real challenge here is to scale-up methods for image segmentation and registration so that we can transform large scale population databases of multimodal medical imagery into highly detailed numerical meshes for finite element poroelasticity brain modelling. Conventional methods are insufficient either because they are impractical to run on databases that have hundreds of multi-dimensional datasets or because they require parameter tuning or manual intervention to produce highly-accurate organ boundaries and numerical meshes. We seek

to develop innovative techniques that can scale-up to work robustly and automatically in various existing large-scale databases available to the consortium.

As a member of the CISTIB team you will be responsible for planning, developing and pursuing research objectives that underpin CISTIB's research programme in computational imaging and modelling, with a particular emphasis on activities in the VPH-DARE@IT project. You will have a PhD in a relevant area of Computer Science, Electrical Engineering, Biomedical Engineering, Physics or a related discipline (or equivalent experience). You will have expertise with sufficient breadth / depth of specialist knowledge as well as knowledge of research methods and techniques to work within established research programmes and a sound understanding of the principles and practical aspects of medical imaging, medical image computing. In addition you will have a demonstrable record of publications in the area of image-based computational modelling in peer-reviewed scientific journals and/or conference proceedings.

Location: Sheffield

Salary: £29,552 to £37,394 Grade 7. Per annum

Hours: Full Time

Contract Type: Contract / Temporary

Placed on: 11th February 2015

Closes: 17th March 2015

Job Ref: UOS010217

Contract Type: Fixed term for 12 months, renewable

Faculty: Faculty of Engineering

More info and application: <http://tinyurl.com/qfd8yl2>

Submitted by: Prof Alejandro F Frangi, PhD FIEEE

Professor Biomedical Image Computing?CISTIB Center for Computational Imaging & Simulation Technologies in Biomedicine?INSIGNEO Institute of in silico Medicine

Electrical & Electronic Engineering Department, The University of Sheffield

Pam Liversidge Bldg, Office C04, Mappin St, S1 3JD Sheffield, UK

T: +44 114 222 0153

| M: +44 785 4463066

E: a.frangi@sheffield.ac.uk

| W: www.cistib.org

From: Alejandro Frangi <a.frangi@sheffield.ac.uk>

Date: March 2, 2015

Subject: Postdoc in Microstructure-sensitive Perfusion/Diffusion MRI in Vascular Cognitive Impairment, CISTIB, University of Sheffield, UK

Research Associate in Microstructure-sensitive Perfusion/Diffusion MRI for Diagnosis of Vascular Cognitive Impairment

This post offers an exciting opportunity to join the highly successful Centre for Computational Imaging and Simulation Technologies in Biomedicine (CISTIB) within the Department of Electronic and Electrical Engineering at the University of Sheffield. CISTIB focuses on algorithmic and applied research in the areas of computational imaging, modelling, and simulation. CISTIB is working at the interface between different areas of computational imaging and modelling: medical image analysis, statistical shape analysis, pattern recognition, image-based computational physiology, and personalised virtual interventions. The centre hosts academic members from the University of Sheffield as well as Research Fellows, Research Associates, PhD Students, and Scientific Software Developers, forming a cross-disciplinary team.

The purpose of the Research Associate post is to support and maintain the University's national and international reputation for excellence in research and teaching. Contribution to excellence in research will be as a member of a research team carrying out research at a similar level to that undertaken by lecturing staff and will provide substantial scope for academic judgement, originality, interpretation and presentation of results. You will work primarily on the OCEAN project, a collaborative project funded by the Engineering and Physical Sciences Research Council (EPSRC), aimed at developing methods for the diagnosis of dementia in vivo and non-invasively. More specifically, this project focusses on the use of diffusion MRI for the characterisation of microstructural and microvascular changes in brain tissue by proper modelling of the acquired signals. As well as your scientific contributions to the project, you will assist with grant administration and the writing of reports for the EPSRC. Contribution to teaching will include assistance in the presentation of seminars and may include participation in the research group's teaching programme, yet you will maintain a research-intensive focus.

You will have a PhD degree in computer science, electrical engineering, physics or equivalent. You will have excellent research skills and capabilities and a solid track record of scientific publications in peer-reviewed international journals. You will also have strong programming experience in C/C++ and MATLAB, and experience in statistical signal processing (estimation theory). Additional experience in diffusion MRI modelling and MR signal formation would be an asset.

The post will remain open till the position is filled. Please, for further information on this post see below. If you would like to discuss further particulars or express your interest in this post, please, contact Prof Alejandro Frangi (a.frangi@sheffield.ac.uk) with a detailed CV, sample publications, a statement of interest, and a minimum of 3 personal references and their contact details.

Job Reference Number: UOS010330
Contract Type: Fixed term until 30 March 2018
Working Pattern: Full time
Faculty: Faculty of Engineering
Department: Department of Electronic and Electrical Engineering
Salary: Grade 7
Closing Date: 1st April 2015
More details and online application at: <http://tinyurl.com/mn2oegh>

Submitted by: Prof Alejandro F Frangi, PhD FIEEE
Professor Biomedical Image Computing?CISTIB Center for Computational Imaging & Simulation Technologies in Biomedicine?INSIGNEO Institute of in silico Medicine
Electrical & Electronic Engineering Department
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From: <noreply@iopscience.org>
Date: February 2, 2015
Subject: Inverse Problems, Volume 31, Numbers 2-3, February/March 2015

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Fourier method for solving the multi-frequency inverse source problem for the Helmholtz equation
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Three-dimensional transient elastodynamic inversion using an error in constitutive relation functional
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A convergent data completion algorithm using surface integral equations
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A nonlinear approach to difference imaging in EIT; assessment of the robustness in the presence of modelling errors
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Source estimation with incoherent waves in random waveguides
Sebastian Acosta, Ricardo Alonso, and Liliana Borcea

From: Liwei Ning <newsletter@aimsciences.org>

Date: February 12, 2015

Subject: New IPI vol. 9, no. 1 2015: February issue is now available online

Inverse Problems and Imaging

February 2015

Volume 9, Number 1
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Optimization approach for the simultaneous reconstruction of the dielectric permittivity and magnetic permeability functions from limited observations
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High-order total variation regularization approach for axially symmetric object tomography from a single radiograph
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Deformable multi-modal image registration by maximizing Renyi's statistical dependence measure
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Finite-dimensional attractors for the Bertozzi--Esedoglu--Gillette--Cahn--Hilliard equation in image inpainting
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Overlapping domain decomposition methods for linear inverse problems
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Estimation of conductivity changes in a region of interest with
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Sparse signals recovery from noisy measurements by orthogonal matching
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On the missing bound state data of inverse spectral-scattering problems
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A new spectral method for l1-regularized minimization
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Continuous dependence of the transmission eigenvalues in one dimension
Yalin Zhang and Guoliang Shi

<http://www.aims sciences.org/journals/contentsListnew.jsp?pubID=744>

Submitted by: Liwei Ning, ?Editorial Manager
American Institute of Mathematical Sciences?
Springfield, MO 65801 USA?
Phone: 417-889-0336?Fax : 417-889-0336?
Email: editorial@aims sciences.org?<http://aims sciences.org/>
----- end -----

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

Today's Topics:

Summer Program: IdeaLab on Inverse Problems & Uncertainty Quantification 2015
Summer School: Introduction to Advanced Topics in Inverse Problems 2015
Symposium: Variational Methods for Dynamic Inverse Problems and Imaging 2015
Deadline Extension: Inverse Problems Symposium 2015
Proposals Solicited: Scale Space & Variational Methods in Computer Vision 2017
Lecturer / Senior Lecturer: Medical Image Computing, Univ. of Sheffield, UK
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>

From: Omar Ghattas <omar@ices.utexas.edu>
Subject: ICERM IdeaLab for early career researchers on "Inverse Problems and Uncertainty Quantification"
Date: March 25, 2015

We are pleased to announce the following ICERM IdeaLab one-week program for early career researchers on the topic of "Inverse Problems and Uncertainty Quantification." A description of the IdeaLab is provided below, along with a link for further information and instructions for application to the program. In addition, a flyer describing the program can be downloaded from <http://users.ices.utexas.edu/~omar/tmp/IdeaLab2015.pdf> .

Please let us know if you have questions.

Best regards,

Omar Ghattas, Youssef Marzouk, and Noemi Petra

ICERM's IdeaLab for Early Career Researchers

Inverse Problems and Uncertainty Quantification
July 6-10, 2015

IdeaLab is a one-week summer program aimed at early career researchers (within 5 years of their Ph.D.) held at Brown University's Institute for Computational and Experimental Research in Mathematics (ICERM). IdeaLab focuses on a topic at the frontier of research. Participants are exposed to a problem whose solution may require broad perspectives and multiple areas of expertise. Senior researchers introduce the topic in tutorials and lead discussions. The participants break into teams to brainstorm ideas, comprehend the obstacles, and explore possible avenues towards a solution. The teams are encouraged to develop a research program

proposal. On the last day, they present their ideas to one another and to a small panel of representatives from funding agencies for feedback and advice.

More About the Topic:

Inverse problems arise in an enormous variety of science and engineering problems. The goal of this IdeaLab is to lay out the fundamentals of uncertainty quantification for inverse problems in a relatively rapid but hands-on manner, so that participants can understand and fluently discuss the current state of the art. We will also discuss connections to classical (regularization-based) inverse problems.

Organizing Committee:

Omar Ghattas, University of Texas at Austin
Youssef Marzouk, MIT
Noemi Petra, University of California, Merced

Funding Includes:

Travel support
Six nights accommodations
Meal allowance

More details and application information can be found at:
<http://icerm.brown.edu/idealab/2015/>

From: Jan-Frederik Pietschmann <pietschm@uni-muenster.de>
Subject: Summer School, Inverse Problems, Germany, Sep 2015
Date: March 30, 2015

The Institute of Computational and Applied Mathematics of the University of Muenster is proud to host a Summer School on Inverse Problems on September 22-25, 2015. The aim of this school is to introduce master and young PhD students to advanced topics in Inverse Problems. The school is preceding a Symposium on Variational Methods for Dynamic Inverse Problems and Imaging (<http://www.wwu.de/math/ipworkshop2015/>) also taking place in Münster. Participants are invited to stay for this event as well.

Lecturers:

- Thorsten Hohage: Regularization of Statistical Inverse Problems and Applications
- Michael Moeller: Variational Methods in Image Processing
- Guillaume Bal: Inverse Problems in Transport
- William Rundell: Inverse Problems in Diffusion

Deadline for registration is June 15, 2015. There will be a limited number of travel funds available for young researchers.

Please find all details, including registration, on
<http://www.wwu.de/math/ipschool2015/>

From: Jan-Frederik Pietschmann <pietschm@uni-muenster.de>
Subject: Variational Methods for Dynamic Inverse Problems and Imaging, Germany, Sep 2015
Date: March 30, 2015

The Institute of Computational and Applied Mathematics of the University of Muenster is proud to host the first Applied Mathematics

Symposium Muenster on Methods for Dynamic Inverse Problems and Imaging, September 28-30, 2015. The aim of this workshop is to collect different aspects of variational methods in imaging and inverse problems, with a particular focus on dynamic problems. The workshop serves as the annual meeting of the GAMM activity group Mathematical Signal and Image Processing.

There is a Summer School on Inverse Problems (<http://www.wwu.de/math/ipschool2015/>) preceding this workshop in the same location.

Invited Speakers:

- Marcelo Bertalmio (Universitat Pompeu Fabra)
- Bernadette Hahn (University of Saarbrücken)
- Sarang Joshi (University of Utah)
- Joyce McLaughlin (RPI)
- Stanley Osher (UCLA)
- Nicolas Papadakis (Universite Bordeaux)

Deadline for registration is June 15, 2015. Please find all details, including registration, on <http://www.wwu.de/math/ipworkshop2015/>

From: "Dolan, Kirk" <dolank@msu.edu>
To: "Inverse Problems Network (IPNet)" <ipnet@math.msu.edu>
Subject: Inverse Problems Symposium 2015
Date: March 28, 2015 at 8:07:25 AM PDT

Inverse Problems Symposium 2015 will be held May 31 - June 2 at Michigan State University, East Lansing Michigan.

We welcome papers on inverse problems from all areas.

<http://www.inverseproblems2015.org/>

Abstract submission deadline has been extended to April 15th.

Important dates:

- Abstract submission closes: April 15, 2015
- Abstract acceptance notification: April 18, 2015
- Early registration closes: May 1, 2015

Contact:

Kirk Dolan, Conference Chair

Keith Woodbury, Conference Co-Chair

James Beck, Conference Honorary Chair

Please join us in East Lansing!

NOTE: the "World Academy of Science, Engineering, and Technology (WASET) is a fraudulent group using our international conference ICIPE name in a fraudulent website:

<https://www.waset.org/conference/2015/11/kyoto/ICIPE/>

From: Mila Nikolova <nikolova@cmla.ens-cachan.fr>
Subject: SSVM 2017 proposals
Date: March 30, 2015

Dear Colleague,

SSVM - Scale Space & Variational Methods in Computer Vision is a biannual conference series. The aim is to bring together communities with common research interests: on scale space analysis, on variational, geometric

and level set methods, and their applications in the image interpretation and understanding. This conference has become a major event in the scientific community.

We welcome proposals for organization of SSVM 2017.

Proposals will be discussed during the program committee meeting planned on Tuesday June 2 at SSVM 2015 (31st May, 4th June)

<http://ssvm2015.math.u-bordeaux.fr/>

Proposals can be mailed to
Jean-Francois.Aujol@math.u-bordeaux.fr
nikolova@cmla.ens-cachan.fr

[until 30 May 2015], or presented at the PC meeting.

Please feel free to contact us if you need any further information.

Best regards,

The SSVM 2015 organizing team:

Jean-François Aujol

Mila Nikolova

Nicolas Papadakis

From: Alejandro Frangi <a.frangi@sheffield.ac.uk>
Subject: Lecturer / Senior Lecturer in Medical Image Computing,
University of Sheffield, UK
Date: March 19, 2015

Lecturer / Senior Lecturer in Medical Image Computing
University of Sheffield - Department of Electronic and Electrical
Engineering
Location: Sheffield
Salary: £38,511 to £54,841 per annum
Hours: Full Time
Contract Type: Permanent
Placed on: 19th March 2015
Closes: 14th May 2015
Job Ref: UoS010404

<http://www.jobs.ac.uk/enhanced/employer/university-of-sheffield/>

Contract Type: Open-ended
Working Pattern: Full time
Faculty: Faculty of Engineering
Salary:
Grade 8: £38,511- £45,954 per annum. Potential to progress to £51,702 per annum through sustained exceptional contribution.
Grade 9: £48,743- £54,841 per annum. Potential to progress to £63,552 per annum through sustained exceptional contribution.

The Electronic and Electrical Engineering Department (EEE) is respected internationally for its many important contributions in the field of electronic and electrical engineering (<http://www.shef.ac.uk/eee>). We currently have 41 academic staff, including 19 Professors, and a student community of approximately 750 comprising undergraduate, postgraduate taught and research students. Our teaching is underpinned by research at the leading edge, with world-class laboratories available to undergraduates and postgraduates. The Department is organised into three consolidated research areas: Semiconductor Materials and Devices, Communications, and Electrical Machines and Drives. A fourth emerging

area around Medical and Biomedical Imaging and Sensing has been strategically recognised as a growth area and this post is framed within this latter context. Further details on each of the research areas can be accessed via the above Departmental web link.

This post offers an exciting opportunity to join a leading research centre within the department of Electronic and Electrical Engineering at the University of Sheffield. The Centre for Computational Imaging and Simulation Technologies in Biomedicine (CISTIB) www.cistib.org is a centre focusing on methodological and translational research in the area of computational imaging, and image-based physical and physiological computational modelling. CISTIB has extensive expertise in model-based imaging and image-based modelling and is a great scientific environment where imaging and modelling meet. This position emerges from the close collaboration at CISTIB between the Departments of Electronic and Electrical Engineering (EEE) and Mechanical Engineering (MEC), both in the Faculty of Engineering.

You will have a good first degree in Engineering, Physics, Mathematics, Computer Science, a biological science or other relevant discipline (or equivalent experience), in addition to a PhD in a relevant engineering discipline or equivalent research experience. You are strongly encouraged to apply if you are committed to pursuing theoretical or applied research in medical image computing whilst working collaboratively across disciplines to strengthen the links between CISTIB and other research institutes in the Faculties of Engineering, and of Medicine, Dentistry and Health, and of Science.

As a Lecturer/Senior Lecturer in EEE you will develop your research profile as well as help deliver the research vision and strategy of CISTIB, the Department and Faculty by conducting independent as well as collaborative research that is internationally leading. You will also secure research funding from a variety of sources, by supervising research students and research staff, and by publishing your work in the top journals in the field. As a teacher you will play a key role in maintaining our reputation for high quality teaching through devising, designing, preparing, and delivering research-led taught courses. Initially you will be allocated substantially lighter than average teaching and administrative duties to allow you to establish your research career and to develop as a teacher. A senior academic mentor and a comprehensive training programme in learning and teaching will support you throughout your early years.

The Department provides a vibrant and supportive environment in which to carry out your research, teaching and professional activities.

The Department has been awarded an Athena SWAN Bronze Award, for its support of representation of Women in Science, Technology, Engineering, Medicine and Mathematics.

You can view the supporting documentation by clicking on About the Job and About the University located near the top of your screen.

Prof Alejandro F Frangi, PhD FIEEE
Professor Biomedical Image Computing
CISTIB Center for Computational Imaging & Simulation Technologies in Biomedicine
INSIGNEO Institute of in silico Medicine
Electronic & Electrical Engineering Department
The University of Sheffield
Pam Liversidge Bldg, Office C04, Mappin St, S1 3JD Sheffield, UK

T: +44 114 222 0153 | M: +44 785 4463066
E: a.frangi@sheffield.ac.uk | W: www.cistib.org

From: <noreply@degruyter.com>
Subject: Contents, 'Journal of Inverse and Ill-posed Problems'
Date: April 1, 2015 at 2:15:34 PM PDT

Journal of Inverse and Ill-posed Problems Volume 23 Issue 2
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<http://www.degruyter.com/view/j/jiip.2015.23.issue-2/issue-files/jiip.2015.23.issue-2.xml>

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degruyter.com?
Customer Service service@degruyter.com?

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IPNet Digest

Volume 22, Number 04

April 3, 2015

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

Today's Topics:

Summer Program: IdeaLab on Inverse Problems & Uncertainty Quantification 2015

Summer School: Introduction to Advanced Topics in Inverse Problems 2015

Symposium: Variational Methods for Dynamic Inverse Problems and Imaging 2015

Deadline Extension: Inverse Problems Symposium 2015

Proposals Solicited: Scale Space & Variational Methods in Computer Vision 2017

Lecturer / Senior Lecturer: Medical Image Computing, Univ. of Sheffield, UK

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Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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Jean-François Aujol
Mila Nikolova
Nicolas Papadakis

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Subject: Lecturer / Senior Lecturer in Medical Image Computing,
University of Sheffield, UK
Date: March 19, 2015

Lecturer / Senior Lecturer in Medical Image Computing
University of Sheffield - Department of Electronic and Electrical
Engineering
Location: Sheffield
Salary: £38,511 to £54,841 per annum
Hours: Full Time
Contract Type: Permanent
Placed on: 19th March 2015
Closes: 14th May 2015
Job Ref: UoS010404

<http://www.jobs.ac.uk/enhanced/employer/university-of-sheffield/>

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Faculty: Faculty of Engineering
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As a Lecturer/Senior Lecturer in EEE you will develop your research profile as well as help deliver the research vision and strategy of CISTIB, the Department and Faculty by conducting independent as well as collaborative research that is internationally leading. You will also secure research funding from a variety of sources, by supervising research students and research staff, and by publishing your work in the top journals in the field. As a teacher you will play a key role in maintaining our reputation for high quality teaching through devising, designing, preparing, and delivering research-led taught courses. Initially you will be allocated substantially lighter than average teaching and administrative duties to allow you to establish your research career and to develop as a teacher. A senior academic mentor and a comprehensive training programme in learning and teaching will support you throughout your early years.

The Department provides a vibrant and supportive environment in which to carry out your research, teaching and professional activities.

The Department has been awarded an Athena SWAN Bronze Award, for its support of representation of Women in Science, Technology, Engineering, Medicine and Mathematics.

You can view the supporting documentation by clicking on About the Job and About the University located near the top of your screen.

Prof Alejandro F Frangi, PhD FIEEE
Professor Biomedical Image Computing
CISTIB Center for Computational Imaging & Simulation Technologies in Biomedicine
INSIGNEO Institute of in silico Medicine
Electronic & Electrical Engineering Department
The University of Sheffield

Pam Liversidge Bldg, Office C04, Mappin St, S1 3JD Sheffield, UK
T: +44 114 222 0153 | M: +44 785 4463066
E: a.frangi@sheffield.ac.uk | W: www.cistib.org

From: <noreply@degruyter.com>
Subject: Contents, 'Journal of Inverse and Ill-posed Problems'
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Today's Editor: Patricia (Patti) K. Lamm, Michigan State University

Today's Topics:

Postdoctoral Position: Electrical Tomography, Subsea Multiphase Flow Metering, Shenzhen

Postdoctoral Position: X-ray Imaging, Tufts University

Postdoctoral Position: Compressed Sensing for Quantitative MR imaging, Edinburgh

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Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

[May be down for a few days in early June 2015]

From: <lihuipeng@mail.tsinghua.edu.cn>

Subject: Post-doctor in Electrical Tomography based Subsea Gas-oil-water Multiphase Flow Metering, Graduate School at Shenzhen, Tsinghua University, China

Date: April 17, 2015

Post-doctor in Electrical Tomography based Subsea Gas-oil-water Multiphase Flow Metering? Graduate School at Shenzhen, Tsinghua University, China

Division of Ocean Science and Technology in Tsinghua University now is looking for 1-2 two years post-doctor in research on Electrical tomography based subsea gas-oil-water multiphase flow metering. The working location will be in Shenzhen campus but frequently travel to Beijing. (<http://www.sz.tsinghua.edu.cn/>)

The major research includes: electrical capacitance and resistance sensor design; image reconstruction algorithm; inverse calculation and modeling for key parameters (e.g. water-to-liquid ratio, thickness of liquid layer, and flow rate) of gas-oil-water multiphase flows; CFD simulation of gas-liquid flows; venturi pressure difference measurement. We have a 2MPa industrial scale close-loop gas-oil-water multiphase flow facility to support this research. Flow rate is up to 15m³/h. The lab hosts academic members from Tsinghua University and Chinese Academy of Sciences, background with automation, electronics, ocean engineering and engineering thermal physics. We are seeking a Post-doctor who will contribute to development of methods for the real industrial scale based gas-oil-water multiphase flow measurement. The applicant should be with at least 2 years experience in research on Electrical capacitance tomography, Electrical resistance tomography, or Gas-liquid flows measurement. Awarded PhD degree in Electronic & Electrical Engineering, Engineering Thermal Physics, or relative subjects. Familiar with Measurement principle, Electrostatic, Signal processing, Mathematic (Inverse calculation), or Computational fluid mechanics. Familiar with MATLAB, FEM analysis (e.g. COMSOL), AUTOCAD or SOLIDWORK, CFD simulation tool. Fluent writing in English for publications.

Please send cover letter and CV to Associate Professor Dr. Yi Li,
Liyi@sz.tsinghua.edu.cn

Location: Shenzhen, China?
Salary: RMB 180,000 - 210,000 Per annum?
Hours: Full Time?
Contract Type: Contract?
Contract Type: Fixed term for 24 months?
Faculty: Division of Ocean Science and Technology

Best regards, Lihui Peng?
Professor Lihui Peng, PhD, SMIEEE?Department of Automation?Tsinghua
University?Beijing, China

From: Eric Miller <elmiller@ece.tufts.edu>
Subject: Postdoctoral Position in X-ray Imaging, Tufts University
Date: May 18, 2015

Postdoctoral Position in X-ray Imaging, Tufts University

Applications are invited for a postdoctoral position in the Laboratory for Imaging Science Research (LaISR) in the Tufts University Dept. of Electrical and Computer Engineering. This appointment would be for 18 months, with an estimated start date of September 2015, for a project entitled "3D Reconstruction Methods for Novel Sparse-view Energy-discriminating Computed Tomography System." Under this project, the fellow will work with Tufts faculty and industrial collaborators to perform research in the area of limited view, multi-energy X-ray reconstruction methods with the goal of developing next-generation airport baggage scanning systems. In particular, we are developing iterative methods that can exploit novel system geometries and can combine energy-resolved X-ray measurements from a sensors operating at varying levels of energy resolution. While previous experience in CT reconstruction would be ideal, we welcome applicants with significant experience in related fields including inverse problems, statistical signal processing, sparse signal or image processing, compressive sensing, and computational modeling. Interested applicants should send a cover letter detailing their research interests and career goals, CV, and names and contact information of 3 references to Dr. Brian Tracey (brian.tracey@tufts.edu).

Submitted by: Eric L. Mille, Professor and Chair, Electrical and Computer Engineering
Adjunct Professor of Computer Science, Adjunct Professor of Biomedical Engineering
Email: eric.miller@tufts.edu
Web: <http://www.ece.tufts.edu/~elmiller/elhome/>
Phone: 617.627.0835 FAX: 617.627.3220
Ground: Halligan Hall Room 101A, 161 College Ave.
Medford Ma, 02155

From: "Wiaux, Yves" <Y.Wiaux@hw.ac.uk>
Subject: Compressive MR imaging Postdocs Edinburgh
Date: May 28, 2015

Dear Colleague

I currently have a postdoc position available in Edinburgh on 'Compressed Sensing for Quantitative MR imaging'.

Details on the position and application procedure can be found at basp.eps.hw.ac.uk

This is part of a large initiative in Edinburgh between signal processing and medical imaging labs, and 2 other positions are also available with my colleagues M. Davies and I. Marshall (see www.ed.ac.uk/jobs).

Submitted by: Dr Yves Wiaux, Assoc. Prof., BASP Director
Institute of Sensors, Signals & Systems, School of Engineering & Physical Sciences
Heriot-Watt University, Edinburgh basp.eps.hw.ac.uk

From: Susan Cummins <newsletter@aimsclences.org>
Subject: New IPI vol. 9, no. 2 2015 May issue is now available online
Date: April 3, 2015

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Recovery of the absorption coefficient in radiative transport from a single measurement
Sebastian Acosta

A control approach to recover the wave speed (conformal factor) from one measurement
Sebastian Acosta

On the range of the attenuated magnetic ray transform for connections and Higgs fields
Gareth Ainsworth and Yernat M. Assylbekov

Half-linear regularization for nonconvex image restoration models
Bartomeu Coll, Joan Duran and Catalina Sbert

Some geometric inverse problems for the linear wave equation
Anna Doubova and Enrique Fernández-Cara

Dynamic linear inverse problems with moderate movements of the object: Ill-posedness and regularization
Bernadette N. Hahn

A new nonlocal variational setting for image processing
Yan Jin, Jürgen Jost and Guofang Wang

Empirical average-case relation between undersampling and sparsity in X-ray CT
Jakob S. Jørgensen, Emil Y. Sidky, Per Christian Hansen and Xiaochuan Pan

4D-CT reconstruction with unified spatial-temporal patch-based regularization
Daniil Kazantsev, William M. Thompson, William R. B. Lionheart, Geert Van Eyndhoven, Anders P. Kaestner, Katherine J. Dobson, Philip J. Withers and Peter D. Lee

Fast quantitative microwave imaging with resolvent kernel extracted from measurements

S Tu, J J McCombe, D S Shumakov, and N K Nikolova

Parallel magnetic resonance imaging as approximation in a reproducing kernel Hilbert space

Vivek Athalye, Michael Lustig, and Martin Uecker

Model-aware Newton-type inversion scheme for electrical impedance tomography

Robert Winkler, and Andreas Rieder

Adaptive truncation of matrix decompositions and efficient estimation of NMR relaxation distributions

Paul D Teal, and Craig Eccles

<http://iopscience.iop.org/0266-5611/31/4/email-alert/1143606929>

Inverse Problems

May 2015

Volume 31, Number 5

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Inverse scattering at fixed energy for massive charged Dirac fields in de Sitter-Reissner-Nordström black holes

Damien Gobin

A variational formulation for interpolation of seismic traces with derivative information

Fredrik Andersson, Yoshinori Morimoto, and Jens Wittsten

How strong are streak artifacts in limited angle computed tomography?

Linh V Nguyen 2015

Inverse problems and sharp eigenvalue asymptotics for Euler-Bernoulli operators

Andrey Badanin, and Evgeny Korotyaev

Iterated fractional Tikhonov regularization

Davide Bianchi, Alessandro Buccini, Marco Donatelli, and Stefano Serra-Capizzano

An inverse kinematic problem with internal sources

Leonid Pestov, Gunther Uhlmann, and Hanming Zhou

Reverse time migration for reconstructing extended obstacles in the half space

Zhiming Chen, and Guanghui Huang

<http://iopscience.iop.org/0266-5611/31/5/email-alert/1143766964>

----- end -----

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

Today's Topics:

Workshop: Sensing and Analysis of High-Dimensional Data (SAHD 2015)
PhD Studentship: 4D Cone Beam CT Imaging of Foot and Ankle Dynamics
Table of Contents: Journal of Inverse and Ill-posed Problems
Table of Contents: Inverse Problems

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: Rebecca Willett <willettr@discovery.wisc.edu>
Subject: SAHD 2015 at Duke University
Date: June 11, 2015

Dear Colleagues:

The Duke University Workshop on Sensing and Analysis of High-Dimensional Data (SAHD 2015) will be held on July 27-29, 2015 at the Washington Duke Inn in Durham, NC. All attendees are invited to present original research. For details, see <http://sahd.pratt.duke.edu/>.

Important Information:

- Early registration deadline is June 15, 2015?
- The Workshop takes place July 27 - 29, 2015 at the Washington Duke Inn, next to Duke University?
- One of two presentation formats may be selected during registration:
 1. a traditional poster or
 2. a whiteboard presentation, which is similar to a poster presentation but presenters have a blank whiteboard and markers rather than a poster.
- Discounted hotel accommodations can be reserved via <http://sahd.pratt.duke.edu/venue.html?>

Please share this invitation with any interested colleagues, including students and postdocs!

SAHD 2015 Organizing Committee

Galen Reeves
Robert Calderbank
Larry Carin
David Dunson
Sayan Mukherjee
Henry Pfister
Ingrid Daubechies
Miguel Rodrigues
Katherine Heller
Guillermo Sapiro
Mauro Maggioni
Rebecca Willett

Submitted by: Rebecca Willett <http://willett.ece.wisc.edu/>

From: "Betcke, Marta" <m.betcke@ucl.ac.uk>
Subject: 4D cone beam CT imaging of foot and ankle dynamics
Date: June 29, 2015

PhD Studentship in "4D cone beam CT imaging of foot and ankle dynamics"
at University College London (UCL)

Applications are invited for PhD studentship to work with Dr Marta Betcke (CMIC, CIP, CS), Dr Andrew Goldberg (IoO, RNOH), Prof David Hawkes (CMIC, CS, MedPhys) and Guy Long (CurveBeam Europe Ltd) on X-ray CT imaging of dynamics of weight bearing foot and ankle. The successful candidate will be a part of the UCL Centre for Medical Image Computing, the UCL Centre for Inverse Problems, and the department of Computer Science researching new instrumentation and algorithms for dynamic imaging.

The foot and ankle are complex structures comprising 28 bones and the structure reflects the complexity of activity for movement, shock absorption stability and balance. Successful diagnosis and treatment planning can be extremely difficult due to limitations posed by existing imaging modalities. Understanding the complex 3D motion of the foot and ankle joints is vital in assessing the progression of long term diseases such as arthritis and devising new treatments for both injury and disease of the ankle and foot.

A new low dose vertical axis cone beam CT scanner, pedCAT, has been developed by CurveBeam, which unique feature is the ability to provide 3D images of the weight bearing foot and ankle with the patient standing motionless in a natural standing position. The aim of the PhD project is to develop and implement imaging protocols and reconstruction algorithms for imaging of dynamic function under load with the pedCAT scanner. To this end, the candidate will mathematically formulate the associated dynamic inverse problem (DIP) and investigate under which conditions and with what additional information the DIP can be uniquely and stably solved. The candidate will devise data acquisition protocols and image reconstruction algorithms for the proposed scenarios.

Further details are available at
<https://www.prism.ucl.ac.uk/#!/?project=137>

If you are interested in applying please contact Dr Marta Betcke
m.betcke@ucl.ac.uk.
First round of applications will close on 16th August 2015. The studentship is due to start on the 28th September 2015, or as soon as possible thereafter.

Submitted by: Dr Marta M. Betcke, Lecturer in Dept. Computer Science
University College London, Gower Street, WC1E 6BT London, UK
Email: m.betcke@ucl.ac.uk Tel: +44(0)20 7679 4355

From: <noreply@degruyter.com>
Subject: TOC, 'Journal of Inverse and Ill-posed Problems'
Date: June 2, 2015

Journal of Inverse and Ill-posed Problems June 2015 Volume 23,
Issue 3

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A nonstandard approximation of pseudoinverse and a new stopping criterion for iterative regularization
Bakushinsky, Anatoly / Smirnova, Alexandra / Liu, Hui

A fast method for L1-L2 modeling for MR image compressive sensing
Zhu, Yonggui / Liu, Xiaoman

An identification problem related to the Biot system
Priimenko, Viatcheslav I. / Vishnevskii, Mikhail P.

Deautoconvolution: A new decomposition approach versus TIGRA and local regularization
Bürger, Steven / Flemming, Jens

On a characteristic property of conditionally well-posed problems
Kokurin, Mikhail Y.

Solution to the inverse Wulff problem by means of the enhanced semidefinite relaxation method
Ševčovič, Daniel / Trnovská, Mária

Summation of smooth functions of two variables with perturbed Fourier coefficients
Solodky, Sergey G. / Sharipov, Kosnazar K.

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<http://www.degruyter.com/view/j/jiip.2015.23.issue-3/issue-files/jiip.2015.23.issue-3.xml>

From: <noreply@iopscience.org>
Subject: Inverse Problems, Volume 31, Numbers 6-7, June-July 2015
Date: June 23, 2015 at 9:28:34 PM EDT

Inverse Problems June 2015 Volume 31, Number 6
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Antenna motion errors in bistatic SAR imagery
Ling Wang, Birsen Yazıcı, and H Cagri Yanik

The method of the approximate inverse for atmospheric tomography
Daniel Gerth, Bernadette N Hahn, and Ronny Ramlau

A uniqueness result for propagation-based phase contrast imaging from a single measurement
Simon Maretzke

Limited-view multi-source quantitative photoacoustic tomography
Hao Gao, Jing Feng, and Liang Song

Single-stage reconstruction algorithm for quantitative photoacoustic tomography
Markus Haltmeier, Lukas Neumann, and Simon Rabanser

Shape sensitivities for an inverse problem in magnetic induction tomography based on the eddy current model
Michael Hintermüller, Antoine Laurain, and Irwin Yousept

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

Today's Topics:

Conference: SIAM Conference on Imaging Science (IS16)

PhD Position: Time-Space Multiscale Separation of Magnetic Signals (Vienna)

Prizes in Imaging Science: SIAG/IS Best Paper Prize and Early Career Prize

New Monograph: Identification in Inverse Problems: Parabolic PDEs

Table of Contents: Inverse Problems

Submissions for IPNet Digest:

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Information about IPNet:

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

From: Kirsten Wilden <Wilden@siam.org>

Subject: SIAM Conference on Imaging Science (IS16) - Call for Presentations

Date: July 29, 2015

Conference Name:

SIAM Conference on Imaging Science (IS16)

Location:

Hotel Albuquerque at Old Town, Albuquerque, New Mexico, USA

Dates:

May 23-26, 2016

Organizing Committee Co-Chairs:

Stefano Soatto, University of California, Los Angeles, USA

Rebecca Willett, University of Wisconsin-Madison, USA

The Call for Presentations for this conference is available at:

<http://www.siam.org/meetings/is16/>

Twitter hashtag: #SIAMIS16

****Deadlines****

SUBMISSION DEADLINES

October 26, 2015: Minisymposium proposals

November 23, 2015: Contributed Lecture, Poster and Minisymposium Presentation Abstracts

TRAVEL FUND APPLICATION DEADLINE

November 13, 2015: SIAM Student Travel Award and Post-doc/Early Career Travel Award Applications

Please visit <http://www.siam.org/meetings/is16/submissions.php> for detailed submission information.

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

From: Christian Gerhards <christian.gerhards@univie.ac.at>
Subject: PhD Position, University of Vienna
Date: July 13, 2015

PhD Position, Mathematical Geosciences, University of Vienna

Currently, there is an open 3-year position for a PhD student at the Computational Science Center (headed by Otmar Scherzer) at the University of Vienna. The position is associated with the DFG-funded project

Time-Space Multiscale Separation of Ocean Tide Generated Magnetic Signals.

The project aims at developing mathematical tools (e.g., the construction of localized basis functions for the induction equation) to separate the contribution of the Earth's Magnetic Field that is generated by induction processes due to (tidal) ocean flow. A collaboration with the GFZ German Research Center for Geosciences in Potsdam is planned for the geophysical applications.

Candidates must have a MSc degree (or equivalent) in Mathematics, Computer Science, or a closely related field and have a strong interest in interdisciplinary mathematics and geosciences.

More details on the project, the position, and the Computational Science Center can be found at
http://www.csc.univie.ac.at/index.php?page=ocean_tides.

Interested candidates should send their application to christian.gerhards@univie.ac.at by August 31, 2015.

Submitted by: Dr. Christian Gerhards
Computational Science Center, University of Vienna
Oskar Morgenstern-Platz 1, Room 07.132
1090 Vienna, Austria
E-Mail: christian.gerhards@univie.ac.at Phone: +43 1 4277 23717

From: Naoki Saito <saito@math.ucdavis.edu>
Subject: Two SIAG/IS prizes: Call for Nominations
Date: July 6, 2015

Dear Colleagues,

Please note that the following two SIAG/IS prizes will be awarded at the 2016 SIAM Imaging Science Conference (IS 16), to be held May 23-26, 2016, in Albuquerque, New Mexico, USA:

- * SIAG/IS Best Paper Prize
(http://www.siam.org/prizes/nominations/nom_siag_is.php)
- * SIAG/IS Early Career Prize
(http://www.siam.org/prizes/nominations/nom_siag_is_career.php)

The latter is our new prize just established this year. So, please nominate the best papers for the former and the outstanding early career researchers for the latter!

The deadline of nominations for both prizes is: September 15, 2015.

Please take a look at the above websites for the details such as the eligibility, how to nominate, etc.

Sincerely,
Naoki Saito
Chair, SIAG/IS

Submitted by: Naoki Saito, Ph.D., Professor, Department of Mathematics
University of California, One Shields Avenue, Davis, CA 95616-8633 USA
Voice: 530-754-2121, Fax: 530-752-6635, Email: saito@math.ucdavis.edu
Home Page: <http://math.ucdavis.edu/~saito/>

From: Quan-Fang Wang <quanfangwang@hotmail.com>
Subject: "Identification in Inverse Problems" monograph
Date: July 4, 2015

Announcing the new monograph:

Title: Identification in Inverse Problems: Parabolic partial differential equation
Author: Quan-Fang Wang
Publisher: Lambert Academic Publishing

Two identification issues in inverse problems discussed in this monograph. One is identifying parameters for a class abstract parabolic partial differential equations on Lipschitz continuity. In variational method framework at (complex) Hilbert spaces, applying theoretic results to Hopfield neural network; Cahn-Hilliard equation; Klein-Gordon-Schrodinger equation. Another is time independent coefficient inverse problem, using Taylor expansion to construct approximate polynomial for convexification approach in global convergent algorithm for 2D parabolic problems. In recovery, determining and reconstructing of system profile, property or characterization, this book captured general issues to identify unknown factors. Proposed abstract theory, bi-quadratic polynomial methodology can be developed to elliptic/hyperbolic issue, or extended to 3D. Rest work focus on time-spatial wise coefficients inverse problem. To be practical applied to a broad diverse problems in a variety disciplinary. These kinds of behaviors to do certification (e.g. DNA) just like detector to find mystery from witness or doctor to seek sick from symptoms, delighted and stimulated. A great interest would be made sure in the future inverse problems.

- * ISBN-13: 978-3-659-70920-3
- * ISBN-10: 3659709204
- * EAN: 9783659709203
- * Book language: English
- * By (author): QUAN-FANG WANG
- * Number of pages: 184
- * Published on: 2015-06-08
- * Category: Mathematics
- * Price: € 64,90

From: <noreply@iopscience.org>
Subject: Inverse Problems, Volume 31, Number 8, August 2015
Date: July 23, 2015

Optimal mollifiers for spherical deconvolution
Ralf Hielscher, and Michael Quellmalz

On reconstruction of strain fields from tomographic data
V Palamodov

Determination of two kinds of sources simultaneously for a stochastic
wave equation
Ganghua Yuan

The inside-outside duality for inverse scattering problems with near
field data
Armin Lechleiter, and Stefan Peters

Efficient combination of a 3D Quasi-Newton inversion algorithm and a
vector dual-primal finite element tearing and interconnecting method
I Voznyuk, A Litman, and H Tortel

A discrete convolution kernel for No-DC MRI
Gengsheng L Zeng, and Ya Li

An inexact Cayley transform method for inverse eigenvalue problems with
multiple eigenvalues
W P Shen, C Li, and X Q Jin

Randomized algorithms for large-scale inverse problems with general
Tikhonov regularizations
Hua Xiang, and Jun Zou

Maximum a posteriori probability estimates in infinite-dimensional
Bayesian inverse problems
T Helin, and M Burger

Near-field imaging of small perturbed obstacles for elastic waves
Peijun Li, and Yuliang Wang

On finding an obstacle embedded in the rough background medium via the
enclosure method in the time domain
Masaru Ikehata

<http://iopscience.iop.org/0266-5611/31/8/email-alert/1145242835>
----- end -----

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

Today's Topics:

Conference: 2nd Workshop on Optimization for Image and Signal Processing

Postdoc Position: X-ray Imaging at Tufts University

Special Issue of Inverse Problems: Superiorization: Theory and Applications

Special Issue of Inverse Problems: Learning and 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:

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Information about IPNet:

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

From: Mila Nikolova <nikolova@cmla.ens-cachan.fr>
Subject: 2nd Workshop on Optimization for Image and Signal Processing,
Paris, December 7-9, 2015
Date: September 23, 2015

Dear Colleague,

The program for the
Second Workshop on Optimization for Image and Signal Processing
to be held in Paris, December 7-9, 2015, is published on
<http://www.lss.supelec.fr/MaoriWorkshop/>

Registration is free but mandatory.

We are looking forward to welcoming you in Paris, France.

With best regards,
The MAORI organizing team

From: Eric Miller <elmiller@ece.tufts.edu>
Subject: Postdoc opening
Date: September 30, 2015

Postdoctoral Position in X-ray Imaging, Tufts University

Applications are invited for a postdoctoral position in the Laboratory for Imaging Science Research (LaISR) in the Tufts University Dept. of Electrical and Computer Engineering. This appointment would be for 18 months, with an estimated start date of September 2015, for a project entitled "3D Reconstruction Methods for Novel Sparse-view Energy-discriminating Computed Tomography System." Under this project, the fellow will work with Tufts faculty and industrial collaborators to perform research in the area of limited view, multi-energy X-ray reconstruction methods with the goal of developing next-generation airport baggage scanning systems. In particular, we are developing iterative methods that can exploit novel system geometries and can combine energy-resolved X-ray measurements from a sensors operating at

varying levels of energy resolution. While previous experience in CT reconstruction would be ideal, we welcome applicants with significant experience in related fields including inverse problems, statistical signal processing, sparse signal or image processing, compressive sensing, and computational modeling. Interested applicants should send a cover letter detailing their research interests and career goals, CV, and names and contact information of 3 references to Dr. Brian Tracey (brian.tracey@tufts.edu).

From: Yair Censor <yair@math.haifa.ac.il>
Subject: Call for Papers for the special issue "Superiorization: Theory and Applications".
Date: September 3, 2015

The Announcement and Call for Papers for the special issue entitled: "Superiorization: Theory and Applications" was released for distribution by "Inverse Problems".

Guest Editors: Yair Censor and Gabor T. Herman. The special issue is "open to all" and the submission deadline is March 31, 2016.

To view the Announcement and Call for Papers please go to item [43] at: <http://math.haifa.ac.il/yair/bib-superiorization-censor.html> or to the journal's website at <http://iopscience.iop.org/0266-5611/page/Special-issue-superiorization-theory-and-applications>.

Thank you and best regards,
Yair

Submitted by: Prof. Yair Censor, Dept. of Mathematics, Univ. of Haifa, Mt. Carmel, Haifa 3498838, Israel.
Homepage: <http://math.haifa.ac.il/yair>

From: Marcelo Bertalmio <marcelo.bertalmio@upf.edu>
Subject: Learning & IPs Special Issue
Date: September 30, 2015

Learning and Inverse Problems special issue to be published in Inverse Problems

Inverse Problems is pleased to announce the following upcoming 2016 special issue entitled 'Learning and Inverse Problems'. This special issue aims at bringing together articles that discuss recent advances on analyzing and optimizing inversion models. Several strategies for conceiving optimization problems, combining prior and data information, have been considered. Let us evoke statistically grounded methods, model design under uncertainties, parameter choice rules, adaptive regularization, dictionary learning, bilevel optimization, among others. Application areas include, but are not limited to, biomedical engineering and imaging, remote sensing and seismic imaging, astronomy, oceanography, atmospheric sciences and meteorology, chemical engineering and material sciences, computer vision and image processing. The guest editors are Juan Carlos De Los Reyes (MODEMAT, EPN Quito, Ecuador), Eldad Haber (University of British Columbia, Canada) and Carola-Bibiane Schönlieb (University of Cambridge, UK).

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.

All papers will be refereed to the usual high standard of Inverse Problems, and must fall within the journal's scope, available at <http://iopscience.iop.org/0266-5611/page/Scope>

We invite you to submit your manuscript via <http://mc04.manuscriptcentral.com/ip-iop>. Please make sure that you select "Special Issue Article" and "Special Issue on learning and inverse problems" from the drop-down menus on the submission page.

The closing date for submissions is 18 January 2016.

From: <noreply@degruyter.com>
Subject: Contents, 'Journal of Inverse and Ill-posed Problems'
Date: August 4, 2015

Journal of Inverse and Ill-posed Problems August 2015 Volume 23,
Issue 4

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The interior transmission eigenvalue problem for a spherically-symmetric domain with anisotropic medium and a cavity
Kirsch, Andreas / Asatryan, Hayk

Ill-conditioning versus ill-posedness for the boundary controllability of the heat equation
Ben Belgacem, Faker / Kaber, Sidi Mahmoud

Parameters identification in the mathematical model of immune competition cells
Afraites, Lekbir / Atlas, Abdelghafour

Inverse source problems for time-fractional mixed parabolic-hyperbolic-type equations
Feng, Pengbin / Karimov, Erkinjon T.

Model parameter estimation of linear time-invariant systems from combined data of forced and initial condition responses
Guo, Ya / Tan, Jinglu

An inverse problem for the Vlasov-Poisson system
Gölgeleyen, Fikret / Yamamoto, Masahiro

An inexact Newton regularization in Banach spaces based on the nonstationary iterated Tikhonov method
Margotti, Fábio / Rieder, Andreas

Multilevel preconditioning for sparse optimization of functionals with nonconvex fidelity terms
Dahlke, Stephan / Fornasier, Massimo / Friedrich, Ulrich / Raasch, Thorsten

The first solution of a long standing problem: Reconstruction formula for a 3-d phaseless inverse scattering problem for the Schrödinger equation
Klibanov, Michael V. / Romanov, Vladimir G.

<http://www.degruyter.com/view/j/jiip.2015.23.issue-4/issue-files/jiip.2015.23.issue-4.xml>

From: Susan Cummins <newsletter@aimsclences.org>
Subject: Contents, Inverse Problems and Imaging
Date: August 20, 2015

Inverse Problems and Imaging August 2015 Volume 9, Number 3
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Identifying defects in an unknown background using differential measurements

Lorenzo Audibert, Alexandre Girard and Houssein Haddar

Determining a distributed conductance parameter for a neuronal cable model defined on a tree graph

Sergei Avdonin and Jonathan Bell

Periodic spline-based frames for image restoration

Amir Averbuch, Pekka Neittaanmäki and Valery Zheludev

Stability and uniqueness for a two-dimensional inverse boundary value problem for less regular potentials

Eemeli Blåsten, Oleg Yu. Imanuvilov and Masahiro Yamamoto

The perturbation of transmission eigenvalues for inhomogeneous media in the presence of small penetrable inclusions

Fioralba Cakoni, Shari Moskow and Scott Rome

Artificial boundary conditions and domain truncation in electrical impedance tomography. Part I: Theory and preliminary results

Daniela Calvetti, Paul J. Hadwin, Janne M. J. Huttunen, David Isaacson, Jari P. Kaipio,

Debra McGivney, Erkki Somersalo and Joseph Volzer

Artificial boundary conditions and domain truncation in electrical impedance tomography. Part II: Stochastic extension of the boundary map

Daniela Calvetti, Paul J. Hadwin, Janne M. J. Huttunen, Jari P. Kaipio and Erkki Somersalo

PDE-constrained optimal control approach for the approximation of an inverse Cauchy problem

Lili Chang, Wei Gong, Guiquan Sun and Ningning Yan

Nomonotone spectral gradient method for sparse recovery

Wanyou Cheng, Zixin Chen and Donghui Li

Point-wise behavior of the Geman--McClure and the Hebert--Leahy image restoration models

Petteri Harjulehto, Peter Hästö and Juha Tiirola

The Cauchy problem for a nonlinear elliptic equation: Nash-game approach and application to image inpainting

Moez Kallel, Maher Moakher and Anis Theljani

A reweighted l2 method for image restoration with Poisson and mixed Poisson-Gaussian noise

Jia Li, Zuowei Shen, Rujie Yin and Xiaoqun Zhang

Oracle-type posterior contraction rates in Bayesian inverse problems
Kui Lin, Shuai Lu and Peter Mathé

Hyperspectral unmixing by the alternating direction method of multipliers
Russell E. Warren and Stanley J. Osher

<http://aimsciences.org/journals/contentsListnew.jsp?pubID=795>

Submitted by: Susan Cummins, Publication Editor,
American Institute of Mathematical Sciences?
Springfield, MO 65801 USA? Phone: 417-351-3204

From: Romas Baronas <romas.baronas@mif.vu.lt>
Subject: Table of Contents, Nonlinear Analysis: Modelling and Control
20:4
Date: September 27, 2015

Nonlinear Analysis: Modelling and Control 2015 Volume 20, Number 4
Table of Contents

Convergence analysis of estimated parameters for parametric nonlinear
strict feedback system with unknown control direction
Jun Min Li, Chao He

Be careful with variable separation solutions via the extended tanh-
function method and periodic wave structures
Chaoqing Dai, Qin Liu

Global stability of disease-free equilibria in a two-group SI model with
feedback control
Yilun Shang

Existence of spatial patterns in reaction-diffusion systems incorporating
a prey refuge
Lakshmi Narayan Guin, Santabrata Chakravarty, Prashanta Kumar Mandal

Best proximity points for p-summing cyclic orbital Meir-Keeler
contractions
Boyan Zlatanov

Compound method of time series classification
Lukasz Korus, Michal Piorek

Self-approximation of periodic Hurwitz zeta-functions
Erikas Karikovas

Invariant analysis and explicit solutions of the time fractional
nonlinear perturbed Burgers equation
Gangwei Wang, Tianzhou Xu

Multivariate goodness-of-fit tests based on kernel density estimators
Aleksej Bakshaev, Rimantas Rudzkis

Computational modeling of the bacterial self-organization in a rounded
container: The effect of dimensionality
Romas Baronas, Zilvinas Ledas, Remigijus Simkus

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

----- end -----

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

Today's Topics:

Symposium: Inverse Problems Symposium 2016

Conference: SIAM Conference on Imaging Science

Tenure Track Position: Applied PDEs and Inverse Problems

Postdoctoral Positions: Computational Exploration Seismology

Postdoctoral Position: Quantitative Image Reconstruction Techniques

PhD Position: Time-Space Multiscale Separation of Ocean Tide Generated Magnetic Signals

New book: Data Assimilation, A Mathematical Introduction

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

Table of Contents: Inverse Problems and Imaging

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: "McMasters, Robert L" <mcmastersrl@vmi.edu>
Subject: Inverse Problems Symposium 2016
Date: October 2, 2015

This is the 29th in the series of National and International meetings on Inverse Problems that were initiated at Michigan State University in 1988. Papers are solicited from all areas involving inverse methods and their applications. The symposium is organized in a single session format to foster cross-disciplinary interaction. Solicited topics include:

- A. Mathematical and Statistical Aspects of Inverse Problems
 - 1. Theory and Methods of Inverse Problems
 - 2. Stability and Error Analysis
- B. Design of Experiments
 - 1. Optimal Design of Experiments
 - 2. Analysis of Actual Experimental Data
- C. Applications
 - 1. Heat Transfer, Applied Mechanics, Controls, Other Engineering Disciplines
 - 2. Biology, Biochemistry, Genetics, and Medicine
 - 3. Nondestructive Evaluation
 - 4. Nanoengineering
 - 5. Tomography and Inverse Scattering
 - 6. Geology and Environmental Phenomena
 - 7. Economics
 - 8. Food and Bioprocessing
 - 9. Bioengineering
 - 10. Packaging

Contact Information:

Honorary Chairman: Dr. James V. Beck, Professor Emeritus, Michigan State University beck@msu.edu.

Conference Chairman: Robert McMasters, Professor
Department of Mechanical Engineering
Virginia Military Institute
Lexington, Virginia 24450
Phone: (540) 464-7534
mcmastersrl@vmi.edu

Conference Co-Chairman: Kirk Dolan, Associate Professor
Department of Food Science & Human Nutrition
Department of Biosystems & Agricultural Engineering
Michigan State University
East Lansing, MI 48224
Phone: (517) 353-3333
dolank@msu.edu

Important dates:

Abstract submission opens: 15 January 2016
Abstract submission closes: 30 March 2016
Abstract acceptance notification: 15 April 2016
Early registration ends at midnight: 1 May 2016

Submitted by:

Robert L. McMasters, Ph.D., P.E.
Department of Mechanical Engineering, Office 717
Virginia Military Institute, Lexington, Va. 24450
Tel: (540)464-7308, Fax:(540)464-7663 <http://www.vmi.edu/mc>

From: "Frank W. Kunkle" <Kunkle@siam.org>
Subject: SIAM Conference on Imaging Science (IS16) - MINISYMPOSIA
DEADLINE EXTENDED!
Date: October 16, 2015

SIAM Conference on Imaging Science - Call for Participation ?
Location: Albuquerque, New Mexico, USA?
Dates: May 23-26, 2015? ?

The Call for Participation for this conference is now available. For
more information, please
visit http://www.siam.org/meetings/is16/?utm_source=link&utm_medium=IS_SIAG&utm_campaign=CCIS16_Deadline_extension??

This conference is being held in cooperation with the American
Statistical Association (ASA) Statistic in Imaging Section
(<http://www.amstat.org/sections/sectionlist.cfm#imaging>)??

Important deadlines:?

Nov. 9: Minisymposium proposals due?
Nov. 13: SIAM Student Travel Award and Post-doc/Early Career Travel Award
Applications due?
Nov. 23: Contributed lecture, poster and minisymposium presentation
abstracts due?
Apr. 25: Pre-registration AND hotel reservation deadline??

Confirmed plenary speakers:?

Uwe Albertin, Chevron Energy Technology Company, USA?
Donald Geman, Johns Hopkins University, USA?
Peyman Milanfar, Google, USA?
Thomas Strohmer, University of California, Davis, USA??

Confirmed minitutorial speakers:?

C. Alex Young, NASA Goddard Space Flight Center, USA?

Lorenzo Rosasco, Istituto Italiano di Tecnologia, Italy?

Gitta Kutyniok, Technical University of Berlin??

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

We hope to see in in Albuquerque next year!??

Rebecca Willett and Stefano Soatto, IS16 Co-Chairs

From: "Klibanov, Mikhail" <mklibanv@uncc.edu>
Subject: tenure track position in applied PDEs and inverse problems
Date: October 3, 2015

Department of Mathematics of the University of North Carolina at Charlotte has announced a tenure track assistant professor position in Applied Mathematics, more specifically applied partial differential equations with a preference in inverse problems. All interested people are welcomed to apply. Below is the text of the full announcement, which can be found at <http://math.uncc.edu/node/198>

Tenure Track Assistant Professor in Applied Mathematics

Applications are invited for a tenure-track assistant professorship in applied mathematics at the University of North Carolina at Charlotte starting August, 2016. Required qualifications are a Ph.D.~degree or equivalent in applied mathematics (more specifically applied partial differential equations with a preference in inverse problems) or a related field, a commitment to establishing a productive research program, and a commitment to excellence in teaching at the undergraduate and graduate levels. Preference will also be given to applicants with strong interdisciplinary research experience, potential for external funding and a demonstrated commitment to and experience in teaching a diverse student body.

Applications must be made electronically at <https://jobs.uncc.edu> (position number 6593) and must include a letter of interest that addresses the requirements for the position, a curriculum vitae, a statement of research plans, a statement of teaching experience, philosophy, and interests, and copies (either official or unofficial) of graduate transcripts. Applicants must also arrange to have three letters of reference on appropriate letterhead stationery forwarded (in PDF format, if submitted electronically) on their behalf to Applied Mathematics Search Committee, Department of Mathematics and Statistics, University of North Carolina at Charlotte, 9201 University City Boulevard, Charlotte, NC 28223, or via email to Ms. Sarah Hornbeck (srhornbe@uncc.edu) with ``Applied PDE Position Reference" in the subject line. Evaluations of applications will commence on November 15, 2015 and will continue until the position is filled. The finalists will be invited for a campus interview and a background check is required before an offer can be made.

The University of North Carolina at Charlotte is a doctoral, research intensive university located in one of the nation's fastest growing metropolitan areas on an expanding, modern campus. One of sixteen campuses in one of the oldest public university systems in the United

States, UNC Charlotte offers over 28,000 students a wide range of undergraduate and graduate degree programs. As the largest college at UNC Charlotte, the College of Liberal Arts & Sciences houses 20 departments in the humanities, social sciences, physical sciences and military sciences, as well as 24 applied research centers and interdisciplinary programs. It offers eight doctoral degrees, 34 master's degrees and graduate certificates and 34 undergraduate degrees. With close to sixty full-time faculty and staff members, over 400 undergraduate majors and a robust Ph.D. program, the Department of Mathematics and Statistics is the largest department in the university. Faculty research interests include such fields as algebra, analysis, computational mathematics, differential equations, mathematical finance, inverse problems, mathematical physics, topology, statistics, and biostatistics.

As an EOE/AA employer and an ADVANCE Institution that strives to create an academic climate in which the dignity of all individuals is respected and maintained, the University of North Carolina at Charlotte encourages applications from all underrepresented groups.

From: Felix Herrmann <fherrmann@eos.ubc.ca>
Subject: Postdoctoral Positions Available in Computational Exploration Seismology
Date: October 10, 2015

Postdoctoral Positions Available in Computational Exploration Seismology

The Seismic Laboratory for Imaging and Modelling (SLIM) at the Department of Earth, Ocean, and Atmospheric Sciences, the University of British Columbia, invites applications for postdoctoral fellows in the following areas:

- observational seismology: development of practical data acquisition scenarios, using simulation-based acquisition design, and practical workflows for 3-D full-waveform inversion;?
- computational and theoretical seismology: design and implementation of large-scale 3D parallel seismic modelling (time-stepping and time-harmonic) and wave-equation based imaging (reverse-time migration) and inversion (full-waveform inversion and migration velocity analysis) techniques;?
- compressive sensing: design and implementation of novel seismic data acquisition, sparse/low-rank optimization algorithms, and directional transforms including curvelets;?
- scientific computing & inverse problems: design and implementation of reduced and full-space PDE-constrained optimization and (Bayesian) parameter-estimation techniques designed to make inferences on the physical properties that govern wave propagation from data collected at the surface, and?
- optimization, machine learning, and image processing: large-scale convex and stochastic optimization; machine learning techniques, including (positive) matrix factorizations, convolutional deep learning, and the scattering transform; image processing including feature detection and classification.?

Who we are

SLIM is one of the leading groups in exploration seismology conducting cutting-edge cross-disciplinary research in seismic data acquisition, processing, imaging, and inversion. We collaborate extensively with industry, through the SINBAD Consortium sponsored by 11 industrial partners, and with other academic institutions through our partnership with the UFRN in Brazil and Imperial College London as part of the

International Inversion Initiative. Check our website and mind map for more details and connections between the different components of the research program at SLIM.

Our interdisciplinary approach builds on recent developments in compressive sensing, large-scale optimization, machine learning and full-waveform inversion. The project includes 10 graduate students, several postdocs, and a research associate. The postdoctoral positions will be under supervision of Felix J. Herrmann (Earth, Ocean, and Atmospheric Sciences) and Ozgur Yilmaz (Mathematics) and are available immediately.

The aim of our research is to design the next-generation scalable 3D seismic imaging technology that addresses fundamental issues related to the quality and cost of seismic data acquisition, the ability to invert exceedingly large seismic data volumes, and the capacity to work with real field datasets. You will be part of a dynamic interdisciplinary international research group and you will present your research at international conferences and to industry. You will be involved in industry collaborations that include internships and projects on real field data. You will have extensive contacts with graduate students, your fellow postdocs, and faculty. We seek excellence in any of a wide variety of areas, from theory, algorithm design, to concrete software implementations to be applied to 3-D field data.

We offer

Aside from being part of an excellent research team, you will have access to major computational resources. At UBC, SLIM owns and operates a 1040-core dedicated HPC cluster with parallel matlab with 300 workers. In Brazil we have 40% exclusive access to Yemoja, a HPC cluster with 17k cores and 4k parallel matlab workers.

Your profile

The ideal candidates are expected to have a solid background in exploration seismology, numerical linear algebra and inverse problems, and should have an overlap in scientific interests with at least two of the above described research areas. In addition, we are looking for candidates with experience in seismic-data processing (e.g. with promax or omega) and/or parallel algorithm development in matlab or equivalent high-level programming languages. Because our program calls for a broad array of activities in Canada, in Brazil and in the UK, candidates may, depending on their background and interests, be involved in research carried out abroad. Because of the industrial involvement there is an expectation that your research will be applied to real 3-D field data sets. Positions are for one year renewable to up to three years.

Successful candidates will have a PhD degree obtained in 2012 or later in geophysics, mathematics, computer science, electrical engineering, or a related field. Earlier PhDs will be considered where the research career has been interrupted by circumstances such as parental responsibilities or illness. UBC hires on the basis of merit, and is committed to employment equity. Positions are open to individuals of any nationality.

How to apply

Applicants are strongly encouraged to apply on-line. Submissions can be made at <https://www.mathjobs.org/jobs/UBC/SLIM15/>. Applicants should submit

- a CV,
- a complete list of publications, and
- a statement of research.

Applicants should also arrange for three letters of recommendation that should address your research capability.

Screening of applications for appointments beginning in the academic year 2016-17 will commence on November 15, 2015. Applications received after this date will be considered if positions remain open.

For additional information please contact Miranda Joyce. For more information on our research program, see our website or our mind map.

About UBC and Vancouver

The University of British Columbia, established in 1908, educates a student population of 50,000 and holds an international reputation for excellence in advanced research and learning. Our campus is 30 minutes from the heart of downtown Vancouver, a spectacular campus that is a 'must-see' for any visitor to the city - where snow-capped mountains meet ocean, and breathtaking vistas greet you around every corner.

Felix J. Herrmann

Professor, Department of Earth, Ocean, and Atmospheric Sciences
Director of UBC-Seismic Laboratory for Imaging and Modeling (SLIM)
EOS-UBC
2207 MAIN MALL, Vancouver, BC, V6T 1Z4 - Canada
phone: (+1) 604-822-8628
<https://www.slim.eos.ubc.ca>

From: David Fuentes <fuentesdt@gmail.com>
Subject: Post-doctoral position in The Department of Imaging Physics at The University of Texas MD Anderson Cancer Center
Date: October 29, 2015

The research focus is the development of quantitative image reconstruction techniques with applications to medical image guided diagnosis and therapy. Research topics include high dimensional inverse problems with l1-like regularization, statistical analysis, model validation, and model selection under measurement uncertainty. The candidate will be expected to work in a highly interdisciplinary research environment with scientists and clinicians throughout MDACC and from partner institutions. The candidate will have access to department computing resources, the institutional High Performance Computing Center cluster (HPCC), and allocations to Texas Advanced Computing Center (TACC).

Qualifications:

Candidates should be proficient in scientific computing and should have a Ph.D. by the time of appointment in any Engineering discipline or Applied Mathematics/Statistics.

To be considered for this position, please forward a research statement and curriculum vitae to:

David Fuentes, Ph.D. U.T. M. D. Anderson Cancer Center 1515 Holcombe Blvd.,
Unit 1902 Houston, TX 77030 E-Mail: dtfuentes@mdanderson.org

M. D. Anderson Cancer Center is an equal opportunity employer and does not discriminate on the basis of race, color, national origin, gender, sexual orientation, age, religion, disability or veteran status except where such distinction is required by law. All positions at The University of Texas M. D. Anderson Cancer Center are security sensitive and subject to examination of criminal history record information. M. D. Anderson Cancer Center is a smoke-free and drug-free environment.

From: Christian Gerhards <christian.gerhards@univie.ac.at>
Subject: PhD Position, Geomathematics, University of Vienna
Date: October 11, 2015

Within the DFG-funded project "'Time-Space Multiscale Separation of Ocean Tide Generated Magnetic Signals'", we offer a PhD Position (3 years) at the Computational Science Center at the University of Vienna.

?

The project focuses on the development and application of mathematical tools for the extraction of the Earth's magnetic field signal that is produced by (tidal) ocean currents and related inverse problems. In particular, the goal is to construct spherical basis functions related to the induction equation that reflect certain spatial properties and which should also be implemented and applied to magnetic field satellite data. Depending on the preferences of the candidate, the emphasis can be on the more theoretical or the more applied aspects of the problem.

?

The project is part of DFG's priority program "'Study of Earth system dynamics with a constellation of potential field missions (DynamicEarth) '". Further information on the project can be found on the website of the Computational Science Center:
www.csc.univie.ac.at/index.php?page=ocean_tides.

?

The position is limited to 3 years and payment is according to the collective bargaining agreement for Austrian university employees (level B1, 75%).

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Required Qualifications:

Candidates have a MSc degree (or equivalent) in Mathematics, Physics, or a closely related field and have an interest in interdisciplinary mathematics and geosciences. They are open minded, active, and have a good command of the English and/or German language.

?

Applications (including letter of motivation, curriculum vitae, copies of academic certificates, and a letter of recommendation) and inquiries on the position should be send to: christian.gerhards@univie.ac.at.

?

The vacancy will be closed whenever a qualified candidate has been found.

Submitted by: Dr. Christian Gerhards
Computational Science Center, University of Vienna
Oskar Morgenstern-Platz 1, Room 07.132
1090 Vienna, Austria
E-Mail: christian.gerhards@univie.ac.at Phone: +43 1 4277 23717

From: "Kody J.H. Law" <kodylaw@gmail.com>
Subject: New book: Data Assimilation, A Mathematical Introduction
Date: October 1, 2015

We are pleased to announce the new book

Title: Data Assimilation, A Mathematical Introduction.
Authors: Law, Kody, and Stuart, Andrew, and Zygalakis, Konstantinos
Publisher: Springer Texts in Applied Mathematics

<http://www.springer.com/us/book/9783319203249>

Springer has generously allowed us to post the first half of the book on the arxiv, here

<http://arxiv.org/abs/1506.07825>

The matlab code which produced the images in the book provides simple examples of the fundamental algorithms. That code is available at the following link, and each program is executable within seconds

<http://tiny.cc/damat>

Submitted by: Kody J.H. Law, Computational Applied Mathematics Group,
Computer Science and Mathematics Division, Computing and Computational
Sciences Directorate,
Oak Ridge National Laboratory, Building 4100, Mailstop 6211
Oak Ridge, TN, 37831, USA lawkj@ornl.gov

From: <noreply@iopscience.org>
Subject: Inverse Problems, Volume 31, Number 9, September 2015
Date: August 28, 2015

Inverse Problems September 2015 Volume 31, Number 9
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Topical review:

Inverse scattering problems with multi-frequencies
Gang Bao, Peijun Li, Junshan Lin, and Faouzi Triki

Papers:

Inversion of the spherical means transform in corner-like domains by
reduction to the classical Radon transform
L Kunyansky

Simultaneous source and attenuation reconstruction in SPECT using
ballistic and single scattering data
M Courdurier, F Monard, A Osses, and F Romero

Combining frequency-difference and ultrasound modulated electrical
impedance tomography
Bastian Harrach, Eunjung Lee, and Marcel Ullrich

The MUSIC algorithm for impedance tomography of small inclusions from
discrete data
A Lechleiter

A one-step reconstruction algorithm for quantitative photoacoustic
imaging

Tian Ding, Kui Ren, and Sarah Vallélian

Inverse diffraction for the Atmospheric Imaging Assembly in the Solar
Dynamics Observatory
G Torre, R A Schwartz, F Benvenuto, A M Massone, and M Piana

Source identification problems for the wave equation on graphs
Sergei Avdonin, and Serge Nicaise

New convergence results for the scaled gradient projection method
S Bonettini, and M Prato

Inverse Born series for the radiative transport equation
Manabu Machida, and John C Schotland

Erratum: A nonlinear approach to difference imaging in EIT; assessment of
the robustness in the presence of modelling errors (2015 Inverse Problems
31 035012)
Dong Liu, Ville Kolehmainen, Samuli Siltanen, and Aku Seppänen

<http://iopscience.iop.org/0266-5611/31/9/email-alert/1146234908>

From: <noreply@degruyter.com>
Subject: TOC 'Journal of Inverse and Ill-posed Problems'
Date: October 2, 2015

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23, Issue 5

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Identification of nonlinear heat conduction laws
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Numerical solution of the multidimensional Gelfand-Levitan equation
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Shishlenin, Maxim A.

On generalized cross validation for stable parameter selection in disease
models
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An optimal regularization method for convolution equations on the
sourcewise represented set
Zhang, Ye / Lukyanenko, Dmitry V. / Yagola, Anatoly G.

Multilevel Jacobi and Gauss-Seidel type iteration methods for solving
ill-posed integral equations
Luo, Xingjun / Hu, Wenyu / Xiong, Lingjuan / Li, Fanchun

Estimation of distributed parameters in permittivity models of composite
dielectric materials using reflectance
Banks, H. Thomas / Catenacci, Jared / Hu, Shuhua

Asymptotic method for finding the coefficient of hydraulic resistance in
lifting of fluid on tubing
Aliev, Fikret A. / Ismailov, Nevazi A. / Namazov, Atif A.

Identification of biological models described by systems of nonlinear
differential equations

Iterative choice of the optimal regularization parameter in TV image restoration

Alina Toma, Bruno Sixou and Françoise Peyrin

Submitted by: Susan Cummins, Publication Editor

American Institute of Mathematical Sciences, Springfield, MO 65801 USA

Phone: 417-351-3204

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

Today's Topics:

Workshop: Inverse Problems for PDEs

Workshop: Statistics, Inverse Problems and Convex Analysis

Symposium: Inverse Problems Symposium Website Available

Postdoctoral Positions: Advanced Data-Driven Black-Box Modelling

Postdoctoral Positions: Seismic Interpretation and Imaging

Special Issue: Learning and Inverse Problems

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Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: Armin Lechleiter <lechleiter@math.uni-bremen.de>
Subject: Announcement of a workshop in spring 2016
Date: November 4, 2015

Workshop Announcement: Inverse Problems for PDEs (IP 2016)
University of Bremen, March 29 - April 1 2016

The workshop on inverse problems for PDEs aims to gather researchers working in the broad field of inverse problems linked to partial differential equations, providing a place to discuss current directions, novel methods, and future trends in the field.

Workshop topics include, but are not restricted to, parameter identification for complex systems governed by partial differential equations, iterative and qualitative methods for domain reconstruction, optimization techniques, inverse eigenvalue problems, and application of inversion algorithms in science or engineering.

The workshop takes place at the University of Bremen, Germany, during the week after Easter 2016 (Tuesday 29.3.2016 until Friday 1.4.2016). Participation is free but registration is mandatory, see

<http://www.math.uni-bremen.de/zetem/ip2016>

I hope to see you next March in Bremen!

Best wishes,

Armin Lechleiter

From: NaNet (Carola-Bibiane Schönlieb cbs31@cam.ac.uk)
Subject: Statistics, Inverse Problems and Convex Analysis, UK, Mar 2016
Date: November 18, 2015

It is my pleasure to announce and invite you to the SuSTaIn EdgeCutter one day workshop on "High-dimensional Statistics, Inverse Problems and Convex Analysis," which will be held on 22nd March 2016 at The Royal

Statistical Society, London.

Confirmed speakers include: Simon Arridge (UCL, London); Volkan Cevher (EPFL); Mario Figueiredo (Lisbon); Gabriel Peyré (Paris-Dauphine); Carola-Bibiane Schönlieb (Cambridge); Martin Wainwright (Berkeley); and Yi Yu (Bristol - Cambridge)

Jointly organised by Marcelo Pereyra (Bristol) and Carola-Bibiane Schönlieb (Cambridge).

This workshop will bring together scientists from the statistics, applied mathematics, signal processing and machine learning communities around the topic of convex analysis and its application to challenging inverse problems. The workshop will feature invited talks by world-leading experts presenting cutting edge research on new theory, methodology, and computer algorithms. We aim to provide a valuable opportunity to network and to foster extensive future interaction between these disciplines. Posters: Participants are encouraged to bring posters and should indicate on the registration form that they will be bringing a poster.

For further details and access to the online registration form please visit the following web page: <http://www.sustain.bris.ac.uk/ws-hds/>

For any other queries please email: SIPCA-workshop@bristol.ac.uk

From: "McMasters, Robert L" <mcmastersrl@vmi.edu>
Subject: Inverse Problems Symposium 2016 website
Date: November 14, 2015

Inverse Problems Symposium 2016
5-7 June 2016 Virginia Military Institute

This is the 29th in the series of National and International meetings on Inverse Problems that were initiated at Michigan State University in 1988. Papers are solicited from all areas involving inverse methods and their applications. The symposium is organized in a single session format to foster cross-disciplinary interaction. Solicited topics include:

- A. Mathematical and Statistical Aspects of Inverse Problems
 - 1. Theory and Methods of Inverse Problems
 - 2. Stability and Error Analysis
 - B. Design of Experiments
 - 1. Optimal Design of Experiments
 - 2. Analysis of Actual Experimental Data
 - C. Applications
- Engineering Disciplines
- 1. Heat Transfer, Applied Mechanics, Controls, Other
 - 2. Biology, Biochemistry, Genetics, and Medicine
 - 3. Nondestructive Evaluation
 - 4. Nanoengineering
 - 5. Tomography and Inverse Scattering
 - 6. Geology and Environmental Phenomena
 - 7. Economics
 - 8. Food and Bioprocessing
 - 9. Bioengineering
 - 10. Packaging

Contact Information:

Conference web site: <http://inverseproblems2016.org/>

Honorary Chairman: Dr. James V. Beck, Professor Emeritus, Michigan State University beck@msu.edu.

Conference Chairman: Robert McMasters, Professor
Department of Mechanical Engineering
Virginia Military Institute
Lexington, Virginia 24450
Phone: (540) 464-7534
mcmastersrl@vmi.edu

Conference Co-Chairman: Kirk Dolan, Associate Professor
Department of Food Science & Human Nutrition
Department of Biosystems & Agricultural Engineering
Michigan State University
East Lansing, MI 48224
Phone: (517) 353-3333
dolank@msu.edu

Important dates:

Abstract submission opens: 15 January 2016
Abstract submission closes: 30 March 2016
Abstract acceptance notification: 15 April 2016
Early registration ends at midnight: 1 May 2016

From: Johan Suykens <Johan.Suykens@esat.kuleuven.be>
Subject: Postdoc positions ERC Advanced Grant A-DATADRIVE-B
Date: November 9, 2015

The research group KU Leuven ESAT-STADIUS is currently offering 2 Postdoc positions (1-year) within the framework of the ERC (European Research Council) Advanced Grant A-DATADRIVE-B (PI: Johan Suykens) <http://www.esat.kuleuven.be/stadius/ADB> on Advanced Data-Driven Black-box modelling.

The research positions relate to the following possible topics:

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

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

The research will be conducted under the supervision of Prof. Johan Suykens. Interested candidates having a solid mathematical background and PhD degree can on-line apply by following the submission guidelines given

at the website <http://www.esat.kuleuven.be/stadius/ADB/vacancies.php> by including CV and motivation letter.

From: Ghassan AlRegib <alregib@gatech.edu>
Subject: Postdoctoral Positions Available in Seismic Interpretation and Imaging
Date: November 10, 2015

Postdoctoral Positions Available in Seismic Interpretation and Imaging
We invite applications for postdoctoral fellows in the following areas:

- machine learning, and image processing: machine learning techniques; image processing including feature detection, classification, and retrieval; ?
- practical data acquisition scenarios; wireless acquisition; and practical workflows for 3D full-waveform inversion;
- design and implementation of large-scale 3D parallel seismic modelling; and
- compressive sensing: directional transforms.

Who we are @ CeGP

CeGP is a joint operation between the DSP group at Georgia Tech and KFUPM. CeGP research focuses on developing advanced signal processing theories and algorithms for computational exploration seismology. At CeGP we conduct cutting-edge cross-disciplinary research in seismic data acquisition, imaging, and processing. We collaborate with industry and academia and look forward to expand our partnerships.

Our interdisciplinary approach builds on recent developments in image processing, compressive sensing, and machine learning. CeGP at Georgia Tech includes 7 faculty members, 12 graduate students, and three postdoctoral fellows.

The aim of our research is to design the next-generation scalable seismic imaging technology that addresses fundamental issues related to the quality and cost of seismic data acquisition, the ability to effectively process and interpret exceedingly large seismic data volumes, and the capacity to apply the developed theory and algorithms to real field datasets, when available.

You will be part of a dynamic interdisciplinary international research group and you will present your research at international conferences and to industry. You will have extensive contacts with graduate students, your fellow postdocs, and faculty. We seek excellence in any of a wide variety of areas, from theory, algorithm design, to concrete software implementations.

Your Portfolio

The ideal candidates are expected to have a solid background in applied geophysics, interpretation, exploration seismology, numerical linear algebra, inverse problems, and machine learning techniques. The ideal candidates are ones with background in applied geophysics, especially interpretation, and experience in signal processing-related problems. Successful candidates will have a PhD degree obtained in 2012 or later in geophysics, mathematics, computer science, electrical engineering, or a related field.

How to apply

Applicants are encouraged to submit the following documents via email to cegp.gt@gmail.com:

- a CV with a complete list of publications and
- a statement of research.

Applicants should also arrange for three letters of recommendation that should address your research capability.

Screening of applications for appointments beginning in the calendar year 2016 will commence on January 31, 2016. Applications received after this date will be considered if positions remain open.

For additional information please check our website at <http://cegp.ece.gatech.edu/>.

Thank you,
Ghassan

From: David Jones <David.Jones@iop.org>
Subject: Inverse Problems Special Issue call
Date: November 6, 2015

A reminder that the Learning and Inverse Problems special issue, to be published in Inverse Problems, is now open for submissions:

This special issue aims at bringing together articles that discuss recent advances on analyzing and optimizing inversion models. Several strategies for conceiving optimization problems, combining prior and data information, have been considered. Let us evoke statistically grounded methods, model design under uncertainties, parameter choice rules, adaptive regularization, dictionary learning, bilevel optimization, among others. Application areas include, but are not limited to, biomedical engineering and imaging, remote sensing and seismic imaging, astronomy, oceanography, atmospheric sciences and meteorology, chemical engineering and material sciences, computer vision and image processing. The guest editors are Juan Carlos De Los Reyes (MODEMAT, EPN Quito, Ecuador), Eldad Haber (University of British Columbia, Canada) and Carola-Bibiane Schönlieb (University of Cambridge, UK).

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

All papers will be refereed to the usual high standard of Inverse Problems, and must fall within the journal's scope, available at

<http://iopscience.iop.org/0266-5611/page/Scope>

We invite you to submit your manuscript via <http://mc04.manuscriptcentral.com/ip-iop>. Please make sure that you select "Special Issue Article" and "Special Issue on learning and inverse problems" from the drop-down menus on the submission page.

The closing date for submissions is 18 January 2016.

Submitted by: Dr David Jones, Publishing Editor, IOP Publishing

From: <noreply@iopscience.org>
Subject: Inverse Problems, Volume 31, Number 10, October 2015
Date: November 3, 2015

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Direct algorithms for solving some inverse source problems in 2D elliptic equations

Batoul Abdelaziz, Abdellatif El Badia, and Ahmad El Hajj

A linear algorithm for the identification of a relaxation kernel using two boundary measures

L Pandolfi

Stabilizing dual-energy x-ray computed tomography reconstructions using patch-based regularization

Brian H Tracey, and Eric L Miller

Determining both sound speed and internal source in thermo- and photo-acoustic tomography

Hongyu Liu, and Gunther Uhlmann

Recovering multiscale buried anomalies in a two-layered medium

Jingzhi Li, Peijun Li, Hongyu Liu, and Xiaodong Liu

Tikhonov and Landweber convergence rates: characterization by interpolation spaces

R Andreev

Analysis of adaptive forward-backward diffusion flows with applications in image processing

V B Surya Prasath, José Miguel Urbano, and Dmitry Vorotnikov

An inverse problem on determining upto first order perturbations of a fourth order operator with partial boundary data

Tuhin Ghosh

Approximate inverse and Sobolev estimates for the attenuated Radon transform

G Rigaud, and A Lakhal

Stable recovery of the time-dependent source term from one measurement for the wave equation

Kamal Rashedi, and Mourad Sini

Addendum: Remark on boundary data for inverse boundary value problems for the Navier-Stokes equations

O Yu Imanuvilov, and M Yamamoto

Corrigendum: Recover the source and initial value simultaneously in a parabolic equation

(2014 Inverse Problems 30 065013)

Guang-Hui Zheng, and Ting Wei

<http://iopscience.iop.org/0266-5611/31/10/email-alert/1146495056>

Estimation of cardiac conductivities in ventricular tissue by a variational approach
Huanhuan Yang, and Alessandro Veneziani

Self-calibration and biconvex compressive sensing
Shuyang Ling, and Thomas Strohmer

Solution of nonlinear Cauchy problem for hyperelastic solids
S Andrieux, and T N Baranger

Renormalized nonlinear sensitivity kernel and inverse thin-slab propagator in T-matrix formalism for wave-equation tomography
Ru-Shan Wu, Benfeng Wang, and Chunhua Hu

Axisymmetric eddy current inspection of highly conducting thin layers via asymptotic models
Housseem Haddar, and Zixian Jiang

A domain derivative-based method for solving elastodynamic inverse obstacle scattering problems
Frédérique Le Louër

5D respiratory motion model based image reconstruction algorithm for 4D cone-beam computed tomography
Jiulong Liu, Xue Zhang, Xiaoqun Zhang, Hongkai Zhao, Yu Gao, David Thomas, Daniel A Low, and Hao Gao

Interpolation of missing electrode data in electrical impedance tomography
Bastian Harrach

Hölder stability estimate of Robin coefficient in corrosion detection with a single boundary measurement
Guanghui Hu, and Masahiro Yamamoto

Some inversion formulas for the cone transform
Fatma Terzioglu

An algorithmic framework for Mumford-Shah regularization of inverse problems in imaging
Kilian Hohm, Martin Storath, and Andreas Weinmann

Corrigendum: Seismic tomography is locally ill-posed
(2014 Inverse Problems 30 125001)
A Kirsch, and A Rieder

<http://iopscience.iop.org/0266-5611/31/11/email-alert/1146591313>

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