IPNet Digest Volume 20, Number 06 August 2, 2013

Today's Editor:

Patricia K. Lamm, Michigan State University

Today's Topics:

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

Subject: SIAM Conference on Imaging Science (IS14)
Call for Presentations Announcement
From: Kirsten Wilden <Wilden@siam.org>
Date: 7/23/2013

Conference Name: SIAM Conference on Imaging Science (IS14)
Location: Hong Kong Baptist University
Dates: May 12-14, 2014

Scientific Committee Co-chairs:
Barbara Kaltenbacher, University of Klagenfurt, Austria
Michael Ng, Hong Kong Baptist University, China
Fadil Santosa, University of Minnesota, USA

Scientific Committee Members:
Guillaume Bal, Columbia University, USA
Maitine Bergounioux, University of Orléans, France
Martin Burger, University of Münster, Germany
Yunmei Chen, University of Florida, USA
Gareth Funka-Lea, Siemens, USA
John Greer, National Geospatial Agency, USA
David Gu, State University of New York at Stony Brook, USA
Sung Ha Kang, Georgia Institute of Technology, USA
Aggelos Katsaggelos, Northwestern University, USA
Ron Kimmel, Technion, Israel
Patricia Lamm, Michigan State University, USA
Jean-Michel Morel, ENS Cachan, France
Adrian Nachman, University of Toronto, Canada

Invited Speakers:

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

The Call for Presentations is available at:
http://www.math.hkbu.edu.hk/SIAM-IS14/Submission.html

Twitter hashtag: #SIAMIS14

Deadlines

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

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

Subject: SIAM AG on Imaging Science Prize 2014: Call for nominations
From: Christine De Mol <demol@ulb.ac.be>
Date: 7/22/2013 9:19 AM

Dear Colleagues,

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

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

The deadline for nominations is September 15, 2013.

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

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

Looking forward to receiving many nominations for outstanding papers.

Sincerely,

Christine De Mol
Chair, SIAM Activity Group on Imaging Science

Subject: PhD studentship in tomography at the University of Edinburgh, UK
From: Nick Polydorides <nick.polydorides@gmail.com>
Date: 7/30/2013

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

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

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

For further details please visit http://www.findaphd.com/search/ProjectDetails.aspx?PJID=46188 or contact Nick Polydorides at nick.polydorides@gmail.com

Closing date: 30 September, 2013.

Subject: Inverse Problems and Imaging: CGO Special Issue Alert!
From: Sarah Hamilton <sarah.hamilton@helsinki.fi>
Date: 5/31/2013

Dear Fellow Inversionists,

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

We look forward to hearing from you.

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

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Call for papers

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

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

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

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

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

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

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

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

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

Kim Knudsen
Technical University of Denmark
kiknu@dtu.dk

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

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

Subject: High impact papers from AIMS made accessible
From: Susan Cummins <newsletter@aimsciences.org>
Date: 7/12/2013

American Institute of Mathematical Sciences

At the American Institute of Mathematical Sciences, we are pleased to have published contributions from all leading researchers in the fields, including 7 Fields Medalists: Jean Bourgain, Charles Fefferman, Elon Lindenstrauss, P.-L. Lions, Terence Tao, Cedric Villani and Shing-Tung Yau. For the next two months we are offering you the following high impact papers access free. And please consider submitting your next articles to our journals at http://www.aimsciences.org.

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

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

Interpolation by linear programming I
Charles Fefferman

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

On random Schrodinger operators on Z^2
Jean Bourgain

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

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

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

Global attractors for damped semilinear wave equations
John M. Ball

Transport in rotating fluids
Peter Constantin

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

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

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

A case study in vanishing viscosity
Stefano Bianchini and Alberto Bressan

Mathematical strategies for filtering turbulent dynamical systems
Andrew J. Majda, John Harlim and Boris Gershgorin

Spectral theory and nonlinear partial differential equations: A survey
Wilhelm Schlag

AIMS 10th International Conference

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

Subject: Table of Contents 'Journal of Inverse and Ill-Posed Problems'
From: "noreply@degruyter.com" <noreply@degruyter.com>
Date: 6/4/2013

Journal of Inverse and Ill-Posed Problems June 2013 Volume 21, Issue 3
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"Recent Progress in Regularization Theory" Minisymposium M5 of the 6-th International Conference "Inverse Problems: Modeling and Simulation"

TGV for diffusion tensors: A comparison of fidelity functions
Valkonen, Tuomo / Bredies, Kristian / Knoll, Florian

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

Variational smoothness assumptions in convergence rate theory—an overview

Flemming, Jens

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

An H1-Kaczmarz reconstructor for atmospheric tomography
Eslitzbichler, Markus / Pechstein, Clemens / Ramlau, Ronny

A new cumulative wavefront reconstructor for the Shack–Hartmann sensor
Neubauer, Andreas

Subject: Inverse Problems, Volume 29, Number 8, August 2013
From: <custserv@iop.org>
Date: 7/31/2013

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

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

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

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

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

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

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

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

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

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

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

On multidimensional inverse scattering in time-dependent electric fields
Tadayoshi Adachi, Yuko Fujiwara, and Atsuhide Ishida

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

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

Subject: Table of Contents, Nonlinear Analysis: Modelling and Control
From: Romas Baronas <romas.baronas@mif.vu.lt>
Date: 7/19/2013

Nonlinear Analysis: Modelling and Control 2012 Volume 17, Number 3
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Multiple cycles and the Bautin bifurcation in the Goodwin model of a class struggle
Giovanni Bella

Expansions in Appell polynomials of the convolutions of probability distributions
Algimantas Bikelis, Kazimieras Padvelskis

Multi-objective single agent stochastic search in non-dominated sorting genetic algorithm Algirdas Lancinskas, Pilar Martinez Ortigosa, Julius Žilinskas

Joint universality of the Riemann zeta-function and Lerch zeta-functions
Antanas Laurincikas, Renata Macaitiene.

Estimation of parameters of finite population L-statistics
Dalius Pumputis, Andrius Ciginas

Some new fixed point results in non-Archimedean fuzzy metric spaces
Peyman Salimi, Calogero Vetro, Pasquale Vetro

Triple-zero singularity of a Kaldor–Kalecki model of business cycles with delay
Xiaoqin P. Wu

Dynamic properties of the coupled Oregonator model with delay
Xiang Wu, Chunrui Zhang

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

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