IPNet Digest Volume 22, Number 08 September 30, 2015

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
Table of Contents: Inverse Problems and Imaging
Table of Contents: Nonlinear Analysis: Modelling and Control

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

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 Bertalmío <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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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

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From: Susan Cummins <newsletter@aimsciences.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 Houssem 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

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