IPNet Digest Volume 20, Number 09 October 31, 2013

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

Today's Topics:

Conference: Inverse Problems from Theory to Application (IPTA 2014) Conference: ICIPE 2014 Abstract Deadline Extended Faculty Positions at HKBU: Areas include Imaging Sciences, Optimization Faculty Position at Emory: Computational Math (Numerical Optimization) Postdoctoral Positions at MIT: Areas include Inverse Problems, Imaging Postdoctoral Position at IBM Singapore: Areas include Inverse Problems Postdoctoral Position at UC Davis: Areas include Compressive Sensing Special Inverse Problems Issue: Bayesian methods in Inverse Problems Table of Contents: Journal of Inverse and Ill-Posed Problems Table of Contents: Inverse Problems Table of Contents: Nonlinear Analysis: Modelling and Control

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

Subject: IPTA 2014: Inverse Problems from Theory to Application Conference From: Leanne Mullen <Leanne.Mullen@iop.org> Date: 10/14/2013

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

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

Registration opens 2nd January 2014.

http://ipta2014.iopconfs.org

Subject: ICIPE 2014 Abstract Deadline Extended From: Inverse Problems <info@inverseproblems.org> Date: 10/8/2013

Abstract Deadline Extended!

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

8th International Conference on Inverse Problems in Engineering (ICIPE2014). Conference Website: http://www.icipe2014.org

The conference will be held on May 12-15, 2014, Cracow, Poland. ICIPE2014 is the continuation of the conference series which began in Palm Coast, FL, USA, in 1993.

Timetable

Abstract submission deadline: November 4, 2013 Abstract acceptance notification: TBA Paper submission deadline: February 1, 2014 Paper acceptance notification: March 15, 2014 Final paper submission deadline: April 12, 2014 Conference start: May 12, 2014

Contact

If you have any further queries, please do not to hesitate to contact us. Organizer Email: icipe2014@icipe2014.org

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

We look forward to seeing you in Cracow,

Yours sincerely, Ireneusz Szczygiel, Conference Chair Andrzej J. Nowak, Conference Co-Chair James V. Beck, Honorary Conference Chair Keith A. Woodbury, ICIPE Steering Committee Marek Rojczyk, Conference Secretary

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

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

From: Michael Ng <mng@math.hkbu.edu.hk> Date: 10/2/2013

Assistant/Associate/Full Professor Positions, MATH HKBU

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

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

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

Subject: Faculty Position, Computational Math, Emory University From: James Nagy <nagy@mathcs.emory.edu> Date: 10/16/2013

The Department of Mathematics & Computer Science at Emory University invites applications for a tenure-track faculty position in Computational Mathematics. Appointments are expected to be at the Assistant Professor level in the area of numerical optimization; senior candidates may be considered for truly outstanding cases. Applicants must demonstrate exceptional research ability, and have a PhD in Mathematics, Computer Science, or a closely related field. Applicants should also have strong records, or promise, as undergraduate and graduate teachers. Ideal candidates will have interdisciplinary interests that complement and enhance current research strengths in numerical linear algebra, networks, inverse problems, numerical partial differential equations, and computational fluid dynamics.

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

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

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

Subject: Postdoc openings at MIT From: Laurent Demanet <laurent@math.mit.edu> Date: 10/2/2013

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

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

Subject: Post-doctoral position available at IBM Research Collaboratory - Singapore From: Laura Wynter <lwynter@us.ibm.com> Date: 10/21/2013

IBM Research Collaboratory in Singapore welcomes qualified post-doctoral candidates to apply for a fellowship starting as early as January 2014.

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

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

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

Salary and benefits are very competitive. The actual salary is determined by the IBM Research Human Resources department and cannot be provided ahead of an offer being made to the candidate. But, it can be expected that the salary and benefits will be very attractive, as compared to academic positions and to other positions in industry. The position is for one year and can be renewed up to two more years based on mutual agreement. As such, this is a duration-limited position. Of the postdoctoral researchers at IBM Research, some are converted to permanent, non-duration-limited, positions during the course of their postdoctoral fellowship. However, no guarantee of such conversion can be made ahead of time.

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

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

please send a recent CV and please have 1 or 2 recommendation letters emailed directly to Dr. Sebastien Blandin, at sblandin@sg.ibm.com.

Subject: Post-doctoral position available at University of California, Davis From: Thomas Strohmer <strohmer@math.ucdavis.edu> Date: 10/23/2013

POST-DOCTORAL POSITION IN MATHEMATICS University of California, Davis

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

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

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

Subject: Bayesian methods in inverse problems special issue to be published in Inverse Problems From: Leanne Mullen <Leanne.Mullen@iop.org> Date: 10/29/2013

Inverse Problems is pleased to announce the following upcoming 2014 special issue entitled 'Bayesian methods in inverse problems'.

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

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

We invite you to submit your manuscript via http://mc04.manuscriptcentral.com/ip-iop. The closing date for submissions is 3rd March 2014.

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

Subject: Table of Contents: 'Journal of Inverse and Ill-Posed Problems' From: <noreply@degruyter.com> Date: 10/1/2013

Journal of Inverse and Ill-Posed Problems Oct 2013 Volume 21, Issue 5 Table of Contents

Conservation laws in differential geometry of plane curves and for eikonal equation and inverse problems Megrabov, Alexander G.

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

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

Semismooth Newton and quasi-Newton methods in weighted 11-regularization Muoi, Pham Quy / Hào, Dinh Nho / Maass, Peter / Pidcock, Michael

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

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

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

[Note: The list of contents for Volume 21, Issue 6, of this journal was given in IPNet Digest Vol. 20, No. 8, available at: http://janus.math.msu.edu/ipnet/ipnet_archive/digests/Digest_v20n08.pdf -Ed.]

Subject: Inverse Problems, Volume 29, Number 11, November 2013 From: <custserv@iop.org>

Inverse Problems November 2013 Volume 29, Number 11 Table of Contents

Stability estimates for the unique continuation property of the Stokes system and for an inverse boundary coefficient problem Muriel Boulakia, Anne-Claire Egloffe and Céline Grandmont

Carleman estimate and inverse source problem for Biot's equations describing wave propagation in porous media Mourad Bellassoued and Masahiro Yamamoto

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

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

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

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

On multiple frequency power density measurements Giovanni S Alberti

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

Augmented projections for ptychographic imaging Stefano Marchesini, Andre Schirotzek, Chao Yang, Hau-tieng Wu and Filipe Maia On the inversion of the Radon transform on a generalized Cormack-type class of curves G Rigaud

Shape optimization methods for the inverse obstacle problem with generalized impedance boundary conditions Fabien Caubet, Marc Dambrine and Djalil Kateb

Inverse spectral analysis for the transmission eigenvalue problem Guangsheng Wei and Hong-Kun Xu

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

A geometric approach to joint inversion with applications to contaminant source zone characterization Alireza Aghasi, Itza Mendoza-Sanchez, Eric L Miller, C Andrew Ramsburg and Linda M Abriola

The factorization method for the acoustic transmission problem Konstantinos A Anagnostopoulos, Antonios Charalambopoulos and Andreas Kleefeld

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

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

Subject: Table of Contents, Nonlinear Analysis: Modelling and Control From: Romas Baronas <romas.baronas@mif.vu.lt> Date: 10/16/2013

Nonlinear Analysis: Modelling and Control 2013 Volume 18, Number 4 Table of Contents

Pulsating flow of an incompressible micropolar fluid between permeable beds Punnamchandar Bitla, Telikicherla Kandala Venkatacharyulu Iyengar

Numerical solution of nonlinear elliptic equation with nonlocal condition Regimantas Ciupaila, Mifodijus Sapagovas, Olga Stikoniene

Weaker cyclic (\varphi, \phi)-contractive mappings with an application to integro-differential equations Hemant Kumar Nashine, Zoran Kadelburg

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

Common fixed point theorems on non-complete partial metric spaces

Shaban Sedghi, Nabi Shobkolaei, Ishak Altun

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

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

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

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

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

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