Contents

IPNet Digest Volume 21, Number 01 January 5, 2014

Today's Editor:
Patricia K. Lamm, Michigan State University
Today's Topics:
Summer Course: Image Based Biomedical Modeling in Park City, Utah
Postdoc. Position: Inverse Problems, Nanoscale Photonic Imaging
Software: A Seismic Imaging Toolbox for Python (PySIT)
Special Issue: Topical Issue on Hybrid Imaging and Image Fusion
Table of Contents: Journal of Inverse and Ill-Posed Problems
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Submissions for IPNet Digest:
Mail to ipnet-digest@math.msu.edu
Information about IPNet:
http://www.math.msu.edu/ipnet

Subject: Summer Course in Image Based Biomedical Modeling

From: Rob MacLeod <macleod@cvrti.utah.edu>
Date: 12/9/2013

Call for Participants:

Park City Summer Course in Image Based Biomedical Modeling (IBBM)

For Graduate Students, Postdocs, Faculty, Industry

Application Deadline: March 1st, 2014
Dates: July 14-24, 2014
Location: Newpark Resort and Hotel in Park City, Utah.
URL: ibbm.sci.utah.edu
Contact: ibbm@sci.utah.edu

This course creates field specific expertise and hands-on experience in bioelectric or biomechanical problems that arise in current biomedical research and clinical practice. It provides training in numerical methods, image analysis, and computational tools necessary to carry out end-to-end, image based, subject specific simulations in bioelectricity or biomechanics, using freely available software. Presented by the Scientific Computing and Imaging (SCI) Institute, the Center for Integrative Biomedical Computing (CIBC), and the Muskuloskeletal Research Laboratories (MRL).

Organizers: Rob MacLeod, Jeff, Weiss, Ross Whitaker

Supported by the National Institutes of Health (NIH), National Institute of General Medical

Sciences (NIGMS)

Submitted by: Rob MacLeod, PhD
Professor of Bioengineering and Internal Medicine, University of Utah
Scientific Computing and Imaging (SCI) Institute
Comprehensive Arrhythmia Research and MAnagement (CARMA)
72 South Central Campus Drive / Salt Lake City, Utah 84112
Email: macleod@sci.utah.edu Fax: (801) 585-6513
Phone: (801) 585 7596 URL: www.sci.utah.edu/~macleod

Subject: Postdoctoral position at University of Göttingen
From: hohage <hohage@math.uni-goettingen.de>
Date:12/9/2013

Applications are invited for a
Postdoctoral Position at University of Göttingen
funded by the German Science Foundation (DFG) within the Collaborative Research Center CRC 755 ''Nanoscale Photonic Imaging''. The position in the group of Thorsten Hohage is initially available from February 1, 2014 until June 30, 2015 with the possibility of extension.

The project is concerned with Inverse Problems with Poisson Data. Photonic imaging consists in reconstructing an unknown object from measured photons which have interacted with the object of interest by solving an inverse problem. For fundamental physical reasons the positions of measured photons are described by a Poisson process. The project aims at the systematic development of regularization theory for inverse problems with Poisson data and the design of efficient algorithms. An interest in collaboration with other projects of the CRC 755 is expected.

For further details, see http://www.uni-goettingen.de/en/86243.html.

Subject: Announcing PySIT: Python Seismic Imaging Toolbox v0.5

From: Russell Hewett <rhewett@mit.edu>
Date: 12/13/2013

Dear Colleagues,

Russell J. Hewett and Laurent Demanet of the Imaging and Computing Group at MIT are pleased to announce the first public release of PySIT: a Seismic Imaging Toolbox for Python. PySIT is available at http://www.pysit.org.

PySIT is a research and pedagogical package for optimization-based seismic imaging, in the framework of full waveform inversion (FWI), built using the

standard tools of scientific Python.

PySIT is designed to be a common platform from which the community can rapidly prototype and reproducibly benchmark new techniques against well-known methods from the literature. The package also contains a quick-start guide for newcomers to imaging and wave equations. A suite of gallery problems is provided, including access to community models such as the Marmousi and BP velocity models.

PySIT is freely available under a BSD license, and development will continue under an open model. Community contributions are welcome. Code documentation and cross-platform installation instructions are available on the project's web page.

The PySIT team is grateful for support from Total SA, the ERL consortium at MIT, AFOSR, ONR, and NSF.

Please feel free to contact us on the Google Groups forum for the project, https://groups.google.com/forum/#!forum/pysit with any questions.

Best,
Russ and Laurent

Submitted by: Russell J. Hewett, Postdoctoral Associate
Imaging and Computing Group, Department of Mathematics
Massachusetts Institute of Technology
www.russellhewett.com

Subject: CFP of Topical Issue on Hybrid Imaging and Image Fusion
for Sensing and Imaging

From: Ming Jiang <ming-jiang@ieee.org>
Date: 12/4/2013

Sensing and Imaging

Topical Issue on Hybrid Imaging and Image Fusion

Call for Papers

Image fusion is the image processing technique through which multiple images from the same or complementary modalities are combined into a single image. Examples include the fusion of X-ray CT and PET images, the combination of Landsat and Panchromatic images, and the creation of spectral optical images. A current research frontier is the integration of multiple modalities to create a hybrid imaging system, such as the PET/CT, PET/MRI, DOT/MRI and DOT/CT systems. This development provides not only an improvement of imaging performance but also the opportunity for image fusion with higher performance. More importantly, it calls for advanced image reconstruction methods that take advantage of the coupled multi-physics underlying the hybrid imaging processes. With synergies among

different modalities, image quality can be enhanced by combining the reconstruction algorithms for individual modalities such as with appropriate regularization terms.

This topical issue is focused on but not limited to the following topics:
• Design and implementation of hybrid imaging techniques and systems
• Image reconstruction methods for hybrid imaging systems
• Image fusion methods for hybrid imaging systems

We invite submissions of full papers and short correspondences as related to theoretical analysis, algorithm design, system development, and performance assessment. Papers on feasibility of futuristic imaging modalities are also welcome.

Authors should submit their manuscripts through the online Manuscript Tracking System at http://www.editorialmanager.com/ssta, indicate that they are for this special issue, and choose one of the guest editors to handle their manuscripts. Authors are encouraged to discuss with a guest editor to determine the suitability of their intended contributions.

Guest Editors
Ming Jiang, Peking University, China ming-jiang@ieee.org
Simon Arridge, University College London, UK S.Arridge@cs.ucl.ac.uk
Shutao Li, Hunan University, China shutao_li@hnu.edu.cn
Ge Wang, Rensselaer Polytechnic Institute, USA wangg6@rpi.edu

Submission Guidelines
For author guidelines and submission details please see
http://www.springer.com/journal/11220

Submission Deadline: March 31 2014.

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

From: <noreply@degruyter.com>
Date: 12/2/2013

Journal of Inverse and Ill-Posed Problems Dec 2013 Vol. 21, Issue 6
Table of Contents

On inverse scattering at fixed energy for the multidimensional Newton equation in a non-compactly supported field
Jollivet, Alexandre

Limited-angle cone-beam computed tomography image reconstruction by total variation minimization and piecewise-constant modification
Zeng, Li / Guo, Jiqiang / Liu, Baodong

A heat source reconstruction formula from single internal measurements using a family of null controls

Garcia, Galina C. / Osses, Axel / Tapia, Marcelo

On accuracy of solving Symm's equation by a fully discrete projection method
Solodky, Sergey G. / Semenova, Evgeniya V.

Degenerate first-order differential equations via projections
Al Horani, Mohammed

Approximate Lipschitz stability for non-overdetermined inverse scattering at fixed energy Novikov, Roman G.

An inverse problem for a third order PDE arising in high-intensity ultrasound: Global uniqueness and stability by one boundary measurement
Liu, Shitao / Triggiani, Roberto

Regularization of the continuation problem for elliptic equations
Kabanikhin, S. I. / Gasimov, Y. S. / Nurseitov, D. B. /
Shishlenin, M. A. / Sholpanbaev, B. B. / Kasenov, S.

Inverse problems for the ground penetrating radar
Kabanikhin, S. I. / Nurseitov, D. B. / Shishlenin, M. A. /
Sholpanbaev, B. B.

Subject: Contents, Inverse Problems and Imaging (IPI)

From: Susan Cummins <newsletter@aimsciences.org>
Date: 12/6/2013

Inverse Problems and Imaging November 2013 Vol. 7, No. 4
Table of Contents

Inverse spectral results in Sobolev spaces for the AKNS operator with partial informations on the potentials
Laurent Amour and Jeremy Faupin

The factorization method applied to cracks with impedance boundary conditions Yosra Boukari and Houssem Haddar

Analysis of the Hessian for inverse scattering problems. Part III: Inverse medium scattering of electromagnetic waves in three dimensions
Tan Bui-Thanh and Omar Ghattas

Identification of nonlinearities in transport-diffusion models of crowded motion
Martin Burger, Jan-Frederik Pietschmann and Marie-Therese Wolfram

Image denoising: Learning the noise model via nonsmooth PDE-constrained optimization Juan Carlos De los Reyes and Carola-Bibiane Schonlieb

Hybrid regularization for MRI reconstruction with static field inhomogeneity correction
Ryan Compton, Stanley Osher and Louis-S. Bouchard

Multi-wave imaging in attenuating media Andrew Homan

Analytic sensing for multi-layer spherical models with application to EEG source imaging Djano Kandaswamy, Thierry Blu and Dimitri Van De Ville

Factorization method for the inverse Stokes problem
Armin Lechleiter and Tobias Rienmuller

Compressive sampling and l1 minimization for SAR imaging with low sampling rate Jiying Liu, Jubo Zhu, Fengxia Yan and Zenghui Zhang

Stability for the acoustic scattering problem for sound-hard scatterers
Giorgio Menegatti and Luca Rondi

Edge-preserving reconstruction with contour-line smoothing and non-quadratic data-fidelity
Marc C. Robini, Yuemin Zhu and Jianhua Luo

Instability of the linearized problem in multiwave tomography of recovery both the source and the speed Plamen Stefanov and Gunther Uhlmann

Seismic data reconstruction via matrix completion
Yi Yang, Jianwei Ma and Stanley Osher

Reconstruction of penetrable grating profiles
Jiaqing Yang, Bo Zhang and Ruming Zhang

Augmented Lagrangian method for a mean curvature based image denoising model
Wei Zhu, Xue-Cheng Tai and Tony Chan

http://aimsciences.org/journals/contentsListnew.jsp?pubID=645

Submitted by: Susan Cummins, Publication Editor
American Institute of Mathematical Sciences
Springfield, MO 65801 USA
Phone: 417-987-6421

Subject: Inverse Problems, Volume 30, Number 1, January 2014

From: <custserv@iop.org>
Date: 12/17/2013

Inverse Problems January 2014 Volume 30, Number 1
Table of Contents

Editorial:
Introduction to the 30th volume of Inverse Problems
Alfred K Louis

Papers:
A variational approach to sparsity optimization based on Lagrange multiplier theory Kazufumi Ito and Karl Kunisch

An ill-posed parabolic evolution system for dispersive deoxygenation–reaeration in water
M Azaïez, F Ben Belgacem, F Hecht, and C Le Bot

Estimation of aquifer dimensions from passive seismic signals with approximate wave propagation models
Timo Lähivaara, Nicholas F Dudley Ward, Tomi Huttunen, Janne Koponen, and Jari P Kaipio

Solution of inverse problems with limited forward solver evaluations: a Bayesian perspective I Bilionis and N Zabaras

Solving a Cauchy problem for a 3D elliptic PDE with variable coefficients by a quasi-boundary-value method Xiaoli Feng and Lars Eldén

The factorization method for cavities Xiaodong Liu

The interior transmission problem for regions on a conducting surface
Fan Yang and Peter Monk

http://iopscience.iop.org/0266-5611/30/1/email-alert/1138284293

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

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From: Romas Baronas <romas.baronas@mif.vu.lt>
Date: 12/8/2013

Nonlinear Analysis: Modelling and Control 2014 Vol. 19, No. 1
Table of Contents

Exponential synchronization for reaction-diffusion neural networks with mixed time-varying delays via periodically intermittent control
Qintao Gan, Hong Zhang, and Jun Dong

Particle Swarm Optimization for Linear Support Vector Machines based classifier selection Gintautas Garšva and Paulius Danenas

Common fixed points for \alpha-\psi-\varphi-contractions in generalized metric spaces Vincenzo La Rosa and Pasquale Vetro

The recognition and modelling of a backbone and its deformity
Ramunas Markauskas, Algimantas Juozapavicius, Kestutis Saniukas, and Giedrius Bernotavicius

Testing the epidemic change in nearly nonstationary autoregressive processes
Jurgita Markeviciute, Alfredas Rackauskas, and Charles Suquet

On a generalized SVEIR epidemic model under regular and adaptive impulsive vaccination
Raul Nistal, Manuel de la Sen, Santiago Alonso-Quesada, and Asier Ibeas

Comparison of spatial classification rules with different conditional distributions of class label
Giedrius Stabingis, Kestutis Ducinskas, and Lijana Stabingiene

Analysis of a duopoly game with heterogeneous players participating in carbon emission trading Lingrui Zhao and Jixiang Zhang

Stability and bifurcation in a ratio-dependent Holling-III system with diffusion and delay Wenjie Zuo and Junjie Wei

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

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

IPNet Digest Volume 21, Number 02 January 30, 2014

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

Today's Topics:
Conference: Biomedical Applications of Electrical Impedance Tomography
Conference: Inverse Problems from Theory to Application
Conference: Chaotic Modeling and Simulation
Position: Postdoc position in Imaging Science, University College London
Journal Notice: 30th Anniversary of Inverse Problems
Journal Special Issue: Inverse Problems
Table of Contents: Inverse Problems in Science and Engineering
Table of Contents: Inverse Problems
Submissions for IPNet Digest:
Mail to ipnet-digest@math.msu.edu
Information about IPNet:
http://www.math.msu.edu/ipnet

Subject: Call for Papers: EIT 2014 Conference: Apr 24-26, 2014

From: Andy Adler <info@eit2014.org>
Date: 1/7/2014

Papers are invited for the 15th International Conference on Biomedical Applications of Electrical Impedance Tomography (EIT 2014), 24th-26th April 2014 at the Glen House Resort in Gananoque, Canada.

www.eit2014.org

Papers are invited in the following areas:

Inverse Problems and Theory
Software for Impedance Imaging
Algorithms and Data Analysis
Clinical applications of Impedance Imaging
Hardware for Impedance Imaging
Related developments in areas such as Geophysics and Process Tomography with potential for cross-over to biomedical applications

Contributions should be prepared using the templates below and submitted online (to be announced) in either PDF or DOCX format. Additional instructions and requirements are specified in the templates:

Latex: http://www.sce.carleton.ca/faculty/adler/eit2014/tmplt_latex.zip
Word: http://www.sce.carleton.ca/faculty/adler/eit2014/tmplt_word.zip

Submissions should be made using the EasyChair system available at:

https://www.easychair.org/account/signin.cgi?conf=eit2014

If you already have an EasyChair account, you should use your existing credentials. Otherwise, please sign up for an account using the above link.

Dates:
15 Feb 2014 1 page paper submission
01 Mar 2014 Notification of acceptance

Best Student Paper Award
An award for best student paper will be given, sponsored by the IOP PMEA. The award will be based on the quality of the scientific contribution and the clarity of the research presentation in both the abstract and the talk at the conference. To be considered for this award, authors must be students, and indicate in the submission form that they wish to be considered.

Subject: IPTA 2014: Inverse Problems from Theory to Application Conference

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From: Leanne Mullen <Leanne.Mullen@iop.org>
Date: 1/23/2014

IPTA 2014: Inverse Problems from Theory to Application Conference

IPTA 2014, hosted by the journal Inverse Problems, will be held in Bristol at the science museum At-Bristol on 26-28th August 2014.

Scientific committee: Professor Alfred K Louis, Professor Simon Arridge and Professor Bill Rundell.

This conference will include plenary lectures, mini-symposia and a public lecture. In addition to the invited speakers, the winner of the 'Inverse Problems Young Researcher Award' will also present a plenary lecture. The following list of mini-symposia is now complete and over 60 mini-symposia speakers are already confirmed.

Full list of confirmed mini-symposia:
Inverse Problems in Industry
Inverse Problems in Biology
Inverse Scattering
Hybrid Medical Imaging
Seismic Imaging
Inverse Statistical Methods
Regularisation Methods – Theory
Identification using PDEs
Regularisation Methods – Algorithms
Asymptotic Expansions
Inverse Problems for Wave Phenomena
Inverse Spectral Problems
Compressive Sensing
Inverse Boundary Problems

Inverse Source Problems
Tomography
Physical Imaging
Inverse Problems in Astronomy
Registration is now open. Early bird registration closes on 19 May 2014.
http://ipta2014.iopconfs.org

We look forward to welcoming you to Bristol.

With best wishes,

Dr Leanne Mullen
Publishing Editor, Inverse Problems

Subject: 7th Chaotic Modeling and Simulation International
Conference, 7-10 June 2014 Lisbon, Portugal

From: <Conf@cmsim.org>
Date: 1/21/2014

Dear Colleague,

You are kindly invited to participate and submit an abstract or paper or to organize a special or invited session to the forthcoming Nonlinear Analysis Conference titled:

7th Chaotic Modeling and Simulation International Conference (CHAOS2014),

Lisbon, Portugal 7-10 June 2014 (http://www.cmsim.org).

* If you already have submitted your contribution ignore this message. However, you can visit the CMSIM Journal to see the 2012 and 2013 Statistics and new papers included at http://www.cmsim.eu and to submit a paper for publication.

The forthcoming International Conference (CHAOS2014) on Chaotic Modeling, Simulation and Applications will take place in VIP Executive Zurique Hotel, Lisbon, Portugal (7-10 June 2014).

The general topics and the special sessions proposed for the Conference include but are not limited to:

Chaos and Nonlinear Dynamics, Stochastic Chaos, Chemical Chaos, Data Analysis and Chaos, Hydrodynamics, Turbulence and Plasmas, Optics and Chaos, Chaotic Oscillations and Circuits, Chaos in Climate Dynamics, Geophysical Flows, Biology and Chaos, Neurophysiology and Chaos, Hamiltonian Systems, Chaos in Astronomy and Astrophysics, Chaos and Solitons, Micro- and Nano- Electro-Mechanical Systems, Neural Networks and Chaos, Ecology and Economy.

The publications of the conference include:

1. The Book of Abstracts in Electronic and in Paper form
2. Electronic Proceedings in CD and in the web in a permanent website
3. Publication in the Journal of "Chaotic Modeling and Simulation
4. Book Publications devoted to CHAOS2014 International Conference

For more information and Abstract/Paper submission and Special Session Proposals please visit the conference website at: http://www.cmsim.org or send email to the Conference Secretariat at: secretar@cmsim.org

Looking forward to welcoming you in Lisbon,

With best regards,
Prof. Christos H. Skiadas

Conference Co-Chair (http://www.cmsim.net)
Email: skiadas@cmsim.net

Subject: Postdoc position in Imaging Science, University College London

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From: "Betcke, Marta" <m.betcke@ucl.ac.uk>
Date: 1/9/2014 4:59 AM

Applications are invited for a postdoctoral Research Associate in Imaging Science to work with Prof. S. Arridge, Dr. M. Betcke and Dr. B. Cox, to develop novel spatio-temporal modelling and reconstruction methods for dynamic high-resolution photoacoustic tomography (PAT). The advertised post is a part of a large interdisciplinary group, based in the UCL Centre for Inverse Problems, the UCL Centre for Medical Imaging Computing, and the departments of Computer Science and Medical Physics & Bioengineering researching new instrumentation and algorithms for the emerging field of Imaging from Coupled Physics.

The Research Associate will contribute to the development of novel spatial temporal analysis methods including compressed sensing, generalised linear models, and state space estimation. A strong background in mathematics, scientific computing or related areas is required. In particular, candidates should have experience with dynamic imaging from undersampled data and inverse problems. Software development experience in a high level programming language and knowledge of Matlab are essential.

The post is funded until 31 December 2015 in the first instance.

Informal enquiries may be addressed to
Prof. Simon Arridge, tel: +44(0)20 7679 3714, email: s.arridge@cs.ucl.ac.uk or
Dr Marta Betcke, tel: +44(0)20 7679 4355, email: m.betcke@ucl.ac.uk or
Dr Ben Cox, tel: +44 (0)20 7679 0292, email b.cox@ucl.ac.uk

Further details can be found at
https://atsv7.wcn.co.uk/search_engine/jobs.cgi?owner=5041178&ownertype=fair&jcode=1392111

The closing date for the applications is 24 Feb 2014.

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

Subject: 30th Anniversary of Inverse Problems

From: Leanne Mullen <Leanne.Mullen@iop.org>
Date: 1/23/2014

Inverse Problems is celebrating its 30th year

Inverse Problems was launched in 1985. To mark the 30th anniversary of the launch of the journal, we have set up a website for readers to find out more about the journal, its history, and our upcoming conference http://ipta2014.iopconfs.org/

Our collection of the Top 30 cited Inverse Problems papers -- found at http://iopscience.iop.org/0266-5611/page/top-30-cited -- is also now free to read until the end of March 2014.

Visit our 30th anniversary webpage at
http://iopscience.iop.org/0266-5611/page/30th-anniversary

Submitted by: Leanne Mullen
Institute of Physics, 76 Portland Place, London W1B 1NT

Subject: Inverse Problems Special Issue

From: Leanne Mullen <Leanne.Mullen@iop.org>
Date: 1/23/2014

Inverse Problems Special Issue:

Inverse Problems is pleased to announce the 2014 special issue entitled 'Bayesian methods in inverse problems' guest edited by Daniela Calvetti and Erkki Somersalo (Case Western Reserve University) and Jari Kaipio (University of Auckland and University of Eastern Finland).

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

The closing date for submissions is 3 March 2014.

Submitted by: Leanne Mullen
Institute of Physics, 76 Portland Place, London W1B 1NT

Subject: Contents, Inverse Problems in Science and Engineering

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From: "Gray, Helen" <Helen.Gray@tandf.co.uk>
Date: 1/23/2014

Inverse Problems in Science and Engineering Jan 2014 Vol 22, Issue 1
Table of Contents

Special Issue: Proceedings of the 6th International Conference "Inverse Problems: Modeling and Simulation", 21-26 May 2012, Antalya, Turkey

Simultaneous determination of time-varying strength and location of a heating source in a three-dimensional domain
Sara Beddiaf, Laetitia Perez, Laurent Autrique & Jean-Claude Jolly

Numerical reconstruction of an inhomogeneity in an elliptic equation
B. Bin-Mohsin & D. Lesnic

Combined energy method and regularization to solve the Cauchy problem for the heat equation T.N. Baranger, S. Andrieux & R. Rischette

Inverse Problems in Science and Engineering, Vol. 22, No. 1, 02 Jan 2014 is now available on Taylor & Francis Online (www.tandfonline.com/gipe)

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

Subject: Inverse Problems, Volume 30, Number 2, February 2014

From: <custserv@iop.org>
Date: 1/28/2014

Inverse Problems February 2014 Volume 30, Number 2
Table of Contents

Estimating the division rate of the growth-fragmentation equation with a self-similar kernel
Thibault Bourgeron, Marie Doumic, and Miguel Escobedo

This issue is available at:
http://iopscience.iop.org/0266-5611/30/2/email-alert/1138567941
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IPNet Digest Volume 21, Number 03 February 28, 2014

Today's Editor: Patricia (Patti) 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: International Conference on Inverse Problems
and Related Topics 2014
From: Jenn-Nan Wang <jnwang@math.ntu.edu.tw>
Date: 2/25/2014

International Conference on Inverse Problems and Related Topics 2014
Dec 15 - Dec 19, 2014, National Taiwan University, Taipei, Taiwan.

BACKGROUND

The 7th International Conference on Inverse Problems and Related Topics will take place at National Taiwan University, Taipei, from Dec 15 to Dec 19, 2014. This series of conferences were previously held in Hong Kong (2002), Shanghai (2004), Hokkaido (2006), Daejeon (2009), Hong Kong (2010), and Nanjing (2012). This conference features speakers from both theoretical (mathematics) and applied (engineering) aspects of inverse problems. It aims to strengthen the interaction and, most importantly, to nurture collaborations between two groups of scientists. In addition, one of the focuses of the conference is to promote young scholars in inverse problems in the Asia-Pacific region.

SCOPES

Inverse problems arise in many areas of science including mathematics, engineering, medicine, physics, and geophysics. The varieties of their applications are enormous such as medical imaging, oil exploration, radar, sonar and seismology. In the last twenty years the

active research carried out in the field of inverse problems has made it become a very promising interdisciplinary topic. The themes of the conference include, but are not limited to:

Inverse boundary value problems
Inverse scattering problems
Medical imaging
Cloaking and invisibility

All scientists who are interested in the current research trends in the field of inverse problems are welcome to attend the conference.

The conference website is http://homepage.ntu.edu.tw/~jnwang/icip2014

Submitted by: Jenn-Nan Wang, Institute of Applied Mathematics
National Taiwan University, Taipei 106, Taiwan
email: jnwang@math.ntu.edu.tw
web: http://www.math.ntu.edu.tw/~jnwang

Subject: MOPT 2014:
From: baikal2014@isem.sei.irk.ru
Date: 05/02/2014

MOPT 2014: 16th Baikal International Triannual School-Seminar
Methods of Optimization & Their Applications

MOPT 2014, hosted by the Energy Systems Institute of Russian Academy of Sciences 30th of June - 6th of July 2014, will be held at the Baikalov Ostrog Resort located on picturesque Olkhon island, lake Baikal.

Program committee: Acad. Yu. G. Evtushenko, Prof. A. S. Antipin, Prof. A. V. Arguchintsev, Prof. V. P. Gergel, Prof. E. Kh. Gimadi, Prof. S. Dempe, Prof. V. A. Dykhta, Prof. A. I. Kibzun, Prof. A. A. Kolokolov, Prof. I. V. Konnov, Prof. Yu. A. Kochetov, Prof. E. A Nurminski, Prof. P. Pardalos, Prof. B. T. Polyak, Prof. Y. D Sergeev, Prof. V. A. Srochko, Prof. A. S. Strekalovsky, Prof. R. G Strongin, Prof. M. Yu. Khachay

This School-Seminar will include plenary lectures and sections talks.

The list of confirmed sections:
Optimization in Inverse Problems
Discrete Optimization
Continuous Optimization
Optimal Control
Equilibrium & Bilevel Programming

Registration is now open:
http://sei.irk.ru/conferences/mopt2014/en/

Contact Person: Dr. Aliona Dreglea, e-mail: baikal2014@isem.sei.irk.ru

We look forward to welcoming you to picturesque Baikal region.

With best wishes,
Dr. Denis Sidorov

Subject: Two PhD Positions in Inverse Problems/Tomography
at the Technical Univ. of Denmark
From: Kim Knudsen <kiknu@dtu.dk>
Date: 2/19/2014

Two PhD Positions in Inverse Problems/Tomography

DTU Compute (www.compute.dtu.dk/english) invites applications for two 3-year PhD positions starting Sept. 1 2014 in the section for Scientific Computing. The positions are affiliated with the project High-Definition Tomography (HD-Tomo, www.imm.dtu.dk/~pcha/HDtomo) financed by the European Research Council.

Project 1: Prior-Driven Diffusion Regularization for Inverse Problems

We consider a special type of regularization based on (often nonlinear and anisotropic) diffusion, in which the diffusivity is designed using prior information. Such methods are well-understood in image analysis in the context of denoising, but for solving general inverse problems in tomography little is known. The results from image analysis will serve as the starting point for the project, and we will both seek to advance the theory in the field and develop algorithms for a computational approach to the problem.

For more details, see www.dtu.dk/job/job?id=76e0ea51-7993-4c48-a2bd-0862cb13c2e9

Project Description 2: Segmentation-Driven Tomographic Reconstruction

We consider tomographic reconstruction aimed at subsequent segmentation. Based on certain applications such as porous materials analysis, we will incorporate many kinds of prior information in order to produce more suitable reconstructions for the segmentation. One obvious advantage is that with the help of “better” reconstruction results the segmentation can be simplified and become more robust to the parameter selection, e.g., a simple thresholding technique may suffice. Concerning prior information in porous material, we will design new mathematical models and numerical algorithms to obtain new kinds of tomographic reconstruction, which can benefit the segmentation.

For more details, see www.dtu.dk/job/job?id=308ccaea-44d8-46a3-88e8-e52cb5a1d07f

Candidates for both positions must have a master degree in applied mathematics, or equivalent academic qualifications, and must have a strong background in applied mathematics and numerical computations.

Applications must be submitted ONLINE in English as one single PDF, and we must have your online application by March 30. Please open the link in the red bar in the top of the page: "apply online".

More information can be obtained from Prof. Per Christian Hansen (pcha@dtu.dk), Assoc. Prof. Kim Knudsen (kiknu@dtu.dk), and Assist. Prof. Yiqiu Dong (yido@dtu.dk).

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

Subject: Call for nomination: MediaV Young Researcher Award
From: Jenn-Nan Wang <jnwang@math.ntu.edu.tw>
Date: 2/25/2014

Call for nomination: MediaV Young Researcher Award

The biannual international conference on inverse problems in the Asia-Pacific region (International Conference on Inverse Problems and Related Topics) established the MediaV Young Researcher Award in 2010 with a generous donation from the MediaV Information Technology (Shanghai) Co Ltd. This prize is awarded to scholars at the age of 40 or less who have made important contributions to the field of inverse problems. At most two awardees are given and the recipients will be invited to give plenary speeches in ICICP 2014. Each awardee will receive RMB 5,000 and a certificate. The award will be presented during the opening ceremony of the conference on December 15, 2014. The chair of the selection committee for the MediaV Young Researcher Award in 2014 is Prof. Dr. Alfred K. Louis.

For nomination, please send candidate's CV, two reference letters (email is acceptable) and two published papers of the candidate to the committee chair Prof. Dr. A. K. Louis at sek-louis@num.uni-sb.de before August 31, 2014.

Previous MediaV Young Researcher Award recipients:

2010, Shuai Lu (Fudan University, Shanghai, China)

2012, Bangti Jin (University of California, Riverside, USA), Mikko Salo (University of Jyvaskyla, Finland)

For further information about the award and the conference in 2014, please link to http://homepage.ntu.edu.tw/~jnwang/icip2014

Submitted by: Jenn-Nan Wang, Institute of Applied Mathematics
National Taiwan University, Taipei 106, Taiwan

email: jnwang@math.ntu.edu.tw
web: http://www.math.ntu.edu.tw/~jnwang

Subject: Contents for Journal of Inverse and Ill-Posed Problems
From: <noreply@degruyter.com>
Date: 2/1/2014

Journal of Inverse and Ill-Posed Problems Feb 2014 Vol. 22, Issue 1
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http://www.degruyter.com/view/j/jip.2014.22.issue-1/issue-files/jip.2014.22.issue-1.xml

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Phone: +49 30 260 05-0 Fax: +49 30 260 05-251
Mail: info@deGruyter.com Internet: www.degruyter.com

Subject: Inverse Problems, Volume 30, Number 3, March 2014
From: <custserv@iop.org>
Date: 2/21/2014

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Subject: ETNA, TOC, Vol. 40
From: Lothar Reichel <reichel@math.kent.edu>
Date: 2/4/2014

Electronic Transactions on Numerical Analysis (ETNA) 2013 Vol. 40

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http://etna.math.kent.edu

Subject: Table of Contents, Nonlinear Analysis: Modelling and Control
From: Romas Baronas <romas.baronas@mif.vu.lt>
Date: 2/23/2014

Nonlinear Analysis: Modelling and Control 2014 Vol. 19, No. 2

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

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

IPNet Digest Volume 21, Number 04 March 31, 2014

Today's Editor: Patricia (Patti) 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

From: OIPE2014 <info@oipe2014.nl>
Subject: OIPE2014
Date: March 17, 2014

25th Optimization and Inverse Problems in Electromagnetism workshops
Delft, The Netherlands
www.oipe2014.nl

Over the past 25 years, the International Workshops on 'Optimization and Inverse Problems in Electromagnetism' (OIPE) have gained a worldwide reputation. We are glad to announce that the 2014 edition of the OIPE workshop series will be held in the historical city of Delft, The Netherlands from 10 to 12 September.

The aim of this workshop is to inform and to exchange ideas on recent developments in optimization and inverse problems in computational electromagnetic fields. Emphasis lies on design and optimization of electromagnetic devices such as machines, transformers, actuators and measurement equipment used in various applications. The workshop offers a forum for engineers, mathematicians and physicists to meet and to discuss theoretical aspects, methodologies and industrial research activities in electromagnetism

Important Dates:
May 10th 2014: Digest submission deadline (2 pages)
May 10th 2014: Start of early bird registration
May 30th 2014: Digest acceptance notification

August 10th 2014: End of early bird registration
August 10th 2014: Deadline for paying fees of presenting authors
September 10th €“ 12th : OIPE2014 conference

Abstract submission procedure:
The authors are encouraged to submit a two-page digest due by May 10th, 2014. Online submission is required and facilities are provided on the website. (www.oipe2014.nl)

Abstract template can be downloaded from:
http://www.oipe2014.nl/content/author

For further information on our conference please visit our website: www.oipe2014.nl

Yours sincerely,
Dr. Domenico Lahaye

From: Kim Knudsen <kiknu@dtu.dk>
Subject: PhD course on Inverse Problems in Copenhagen June 2014
Date: March 11, 2014

We kindly invite you to Copenhagen in June 2014 for the
International PhD course on Inverse Problems with Applications in Tomography and Imaging.

This course will give a basic introduction to the mathematical and computational aspects of inverse problems, supplied with case studies in the form of applications from tomography, computer vision and bioimaging.

Lecturers :
Ville Kolehmainen, University of Eastern Finland
Erkki Somersalo, Case Western Reserve University
Kenichi Kanatani, Okayama University
Per Christian Hansen, Technical University of Denmark
Martin Lindahl, Department of Biochemistry and Structural Biology, Lund University and the Department of Biosciences, Karolinska Institutet

More information about the PhD course can be found on the web site http://www.diku.dk/forskning/research_school/phd_courses/upcoming/inverse_problems/

We would be pleased to welcome you and your students in June 2014 in Copenhagen!

Best wishes,

Aasa Feragen, Sami Brandt and Kim Knudsen
Organizers

Submitted by: Kim Knudsen, Associate Professor, DTU Compute

Danmarks Tekniske Universitet
Department of Applied Mathematics and Computer Science
Matematiktorvet, Building 303 B, 2800 Kgs. Lyngby
Direct telephone 45253026 kiknu@dtu.dk
www.compute.dtu.dk/

From: agah Garnadi <adg661@yahoo.com>
Subject: CIMPA-Indonesia 2014 Mathematical Imaging Schools
Date: March 17, 2014

CALL FOR APPLICATIONS

CIMPA-Indonesia School 2014
Mathematical and Statistical Tools in Mathematical Imaging
25 August-5 September 2014
Bandung, INDONESIA

Deadline for Applications: 1 June 2014

For informations, please refer to:

http://cimpaimagingschool2014.fmipa.itb.ac.id/

NOTE:
- Scholarships are available for the applicant from developing countries in limited seats.
- Subject to DAAD approval, some scholarships for DAAD alumna/stipendiat are available. [Please mentions it that you are DAAD alumna/stipendiat.]

From: Christian Clason <christian.clason@uni-due.de>
Subject: Postdoc in Inverse problems/Imaging/Optimization at Duisburg-Essen
Date: March 28, 2014

The Faculty of Mathematics at the University of Duisburg-Essen is inviting applications for the position of a postdoctoral research associate (wissenschaftliche(r) Mitarbeiter(in), TV-L 13, two year contract) in the research group on inverse problems. The specific research topic will be adjusted to the applicant's interests and skills but should be within the area of analysis and numerics of parameter identification problems, mathematical (variational) imaging or optimization with partial differential equations. With a total of twelve research groups in analysis, optimization and numerical mathematics within the faculty, this position offers a unique opportunity for joint research.

The successful candidate will have a PhD in mathematics, solid knowledge of functional analysis and nonlinear optimization and experience in the numerical realization of algorithms and their application to concrete problems. Since the position includes teaching duties (4 hours/week during the semester), the ability to teach in German is required. Interest in interdisciplinary collaboration is expected.

Applications including a CV and copies of relevant certificates should be sent to

Christian Clason
UniversitÃ¤t Duisburg-Essen
Fakulty of Mathematics
45117 Essen

or via email to

christian.clason@uni-due.de

The deadline is

April 18, 2014

As an equal opportunity and affirmative action employer, the university explicitly encourages applications from women as well as from all others who would bring additional diversity dimensions to the universityâ€™s research and teaching strategies. Preference will be given within the framework of legal possibilities to such candidates with essentially the same qualifications.

For more details, please see the official announcement of the university at http://goo.gl/DmuA7a (PDF, in German). Information about the research group and the faculty can be found at https://www.uni-due.de/mathematik/agclason.

Submitted by: Prof. Dr. Christian Clason
AG Inverse Probleme, FakultÃ¤t fÃ¼r Mathematik
UniversitÃ¤t Duisburg-Essen
tel: +49 201 183 6382
www: http://www.uni-due.de/mathematik/agclason

From: Susan Cummins <newsletter@aimsciences.org>
Subject: New IPI vol. 8, no. 1 2014 February issue is now available online Date: March 28, 2014

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Submitted by: Susan Cummins, Publication Editor
American Institute of Mathematical Sciences
Springfield, MO 65801 USA
Phone: 417-987-6421
------ end -------

IPNet Digest Volume 21, Number 05 May 2, 2014

Today's Editor: Patricia (Patti) 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

From: Samuli Siltanen <samuli.siltanen@helsinki.fi>
Subject: Applied Inverse Problems Conference
Date: April 1, 2014

Applied Inverse Problems Conference 2015

Inverse problems arise from the need to interpret indirect measurements. Such situations are common in many application areas such as medical imaging, nondestructive testing, underground prospecting, astronomical imaging, remote sensing, image processing, and data mining. Scientific research of inverse problems is multidisciplinary and involves for example mathematics, physics, engineering and signal processing.

The Applied Inverse Problems (AIP) conference series is the premier scientific meeting of the field, organized by Inverse Problems International Association (IPIA) every two years. The next AIP Conference will be held in Helsinki, Finland, in May 25-29, 2015. The official conference website is http://aip2015.fips.fi/. The local organizing institution is the Finnish Inverse Problems Society (www.fips.fi).

The minisymposium proposal deadline is September 30, 2014.

Scientific Committee:
Samuli Siltanen (chair), University of Helsinki, Finland
Gang Bao, Zhejiang University, China
Eric Bonnetier, Université Joseph Fourier, Grenoble, France

Martin Burger, University of Muenster, Germany
Maarten de Hoop, Purdue University, USA
Hiroshi Isozaki, University of Tsukuba, Japan
Matti Lassas, University of Helsinki, Finland
Peter Maass, University of Bremen, Germany
Graeme Milton, University of Utah, USA
Jennifer Mueller, Colorado State University, USA
Lassi Päivärinta, University of Helsinki, Finland
Carola-Bibiane Schönlieb, University of Cambridge, UK
Gunther Uhlmann, University of Helsinki, Finland, and University of Washington, USA
Jun Zou, Chinese University of Hong Kong

Submitted by: Samuli Siltanen
Professor of Industrial Mathematics
University of Helsinki

From: OIPE2014 <info@oipe2014.nl>
Subject: OIPE2014, Final Call for Digests
Date: April 24, 2014

Final Call for Digests
13th Optimization and Inverse Problems in Electromagnetism workshops
Delft, The Netherlands,
www.oipe2014.nl

On 10, 11 and 12 September the 13th edition of the International Workshops on 'Optimization and Inverse Problems in Electromagnetism' (OIPE) will take place in Delft, The Netherlands.

We are very proud to announce Matthias Stolpe (TU Denmark) and Ruth V. Sabariego (KU Leuven) as the invited lecturers.

The conference venue, theatre De Veste is located in the historical center of Delft and all hotels are within 7 minutes walking distance. At the end of the 1st conference day the mayor of Delft will welcome you in the old Town Hall. The conference dinner will be on Thursday, September 11th. A luxurious touring bus will bring you to Rotterdam, where you will enjoy the view of the world's largest harbor in all its glory, while dinner is served on board of a special ship.

Important Dates:
May 10th 2014: Digest submission deadline (2 pages)
May 10th 2014: Start of early bird registration
May 30th 2014: Digest acceptance notification
August 10th 2014: End of early bird registration
August 10th 2014: Deadline for paying fees of presenting authors
September 10th – 12th: OIPE2014 conference

Abstract submission procedure:

The authors are encouraged to submit a two-page digest due by May 10th, 2014. Online submission is required and facilities are provided on the website. (www.oipe2014.nl)
Abstract template can be downloaded from:
http://www.oipe2014.nl/content/author

For further information on our conference please visit our website: ww= w.oipe2014.nl

Yours sincerely,
Dr. Domenico Lahaye

From: "Betcke, Marta" <m.betcke@ucl.ac.uk>
Subject: PhD Studentship in Image Reconstruction
Date: April 14, 2014

PhD studentship in Image Reconstruction from In-perfect Data in Photoacoustic Tomography

The majority of biological imaging modalities can either provide high contrast or high resolution. Photoacoustic Tomography (PAT) is an example of a new type of imaging utilising coupled physics i.e. where the contrast induced by one type of wave is read by another kind so that both high resolution and high contrast are achieved simultaneously. Many approaches to image reconstruction from idealised complete data are available including analytic methods based on the Spherical Mean Radon Transform, (which require the assumption of uniform sound speed), and time reversal methods (which are able to accommodate tissue-realistic acoustic attenuation and heterogeneous sound speed).

In practice, in particular in in vivo applications, it is difficult or even impossible to measure a complete set of data required for PAT reconstruction. The data is further degraded by limited penetration of the optical wave into the tissue. Novel subsampling techniques being developed in our group pose additional challenge, as the wave field is captured with non-uniform precision. The goal of the PhD is to develop mathematical theory and image reconstruction algorithms tailored to reconstruction from in-prefect data and provide efficient and robust implementation of the algorithms.

The student will be supervised by Dr Marta Betcke and will be based in the Department of Computer Science at UCL. The studentship is funded by the Department of Computer Science for 3.5 years. It covers a tax-free stipend of approximately £15,863 per annum, other costs of £1000 per annum and tuition fees (http://www.ucl.ac.uk/current-students/money/2014-2015_fees/2014-15_postgrad_research).

Application deadline is 31st May 2014.

Further details can be found at:
http://prism.ucl.ac.uk/pgadmissions/apply/new?program=RRDCOMSING01&project=19&advert=55

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: Lauri Oksanen <l.oksanen@ucl.ac.uk>
Subject: Postdoc position at UCL, London in inverse problems/control theory
Date: April 30, 2014

Applications are invited for a Postdoctoral Research Associate to work on the project 'The inverse source problem arising in Photoacoustic Tomography'. The project lies in the intersection of inverse problems and control theory for hyperbolic partial differential equations.

The post is available from 1 September 2014 (or according to agreement), and is funded by the EPSRC and UCL for 2 years.

Application deadline 1 June 2014

Further information
https://atsv7.wcn.co.uk/search_engine/jobs.cgi?owner=5041178&ownertype=fair&jcode=1414230

Informal enquiries may be addressed to Lauri Oksanen, PI
l.oksanen@ucl.ac.uk

From: Ledger P.D. <P.D.Ledger@swansea.ac.uk>
Subject: Postdoctoral Position in Scientific Computing and Inverse Problems.
Date: May 2, 2014

As part of an on-going EPSRC funded collaboration between the College of Engineering, Swansea University, UK, the School of Mathematics and School of Computer Science and Informatics at Cardiff University, UK, a 2-year post-doctoral (PDRA) position in scientific computing is available.

The position will be focused on the application of parallel computing and the use GPUs to accelerate the solution of Maxwell inverse problems for a medical imaging application. The position will be based at the School of Computer Science and Informatics at Cardiff University under the supervision of Professor David Walker. The PDRA will also work together with the other grant holders Professors Marco Marletta and Malcolm Brown (Cardiff University), Dr Paul Ledger (Swansea University) and the other PDRAs on the project. For further details and how to apply please see

http://krb-sjobs.brassring.com/TGWEbHost/jobdetails.aspx?partnerid=30011&siteid=5460&AReq=2032BR

The closing date for the position is Thursday 29 May 2014.

Submitted by: Paul Ledger, Associate Professor,
Room 150 Talbot Building, College of Engineering, Swansea University
Swansea SA2 8PP UK
p.d.ledger@swansea.ac.uk
http://www.swan.ac.uk/staff/academic/engineering/ledgerpaul/
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From: <custserv@iop.org>
Subject: Inverse Problems, Volume 30, Numbers 4-5, April/May 2014
Date: April 1, 2014 at 5:15:56 AM EDT

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Hybrid inverse problems for a system of Maxwell's equations
Guillaume Bal, and Ting Zhou

Functional-analytic and numerical issues in splitting methods for total variation-based image reconstruction
Michael Hintermüller, Carlos N Rautenberg, and Jooyoung Hahn

Identification and reconstruction of elastic body forces
Carlos J S Alves, Nuno F M Martins, and Nilson C Roberty

A Carleman estimate for infinite cylindrical quantum domains and the application to inverse problems Yavar Kian, Quang Sang Phan, and Eric Soccorsi

Corrigendum: A variational perspective on controllability (2010 Inverse Problems 26 015004) Pablo Pedregal

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From: <noreply@degruyter.com>
Subject: Table of Contents 'Journal of Inverse and Ill-posed Problems'
Date: April 2, 2014

Journal of Inverse and Ill-posed Problems April 2014 Vol 22, Issue 2
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A comparison of regularization methods for identifying unknown source problem for the modified Helmholtz equation Zhao, Jingjun / Liu, Songshu / Liu, Tao

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IPNet Digest Volume 21, Number 06 June 1, 2014

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

Today's Topics:
Call for Posters: Inverse Problems -- from Theory to Application (IPTA 2014)
Upcoming Workshop: Imaging with Modulated/Incomplete Data 2014
Postdoc Position: Data Modeling and Analysis of Brain/Body Imaging
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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: Leanne Mullen <Leanne.Mullen@iop.org>
Subject: IPTA2014 Call for Posters
Date: May 20, 2014

Dear All,

Thank you for all your help and support with our upcoming IP conference.
IPTA2014 http://ipta2014.iopconfs.org/IPTA

As the conference only lasts 3 days we have had to limit the number of speakers that we could accommodate within the programme.

However, it would be great to include more early stage researchers in our conference. Therefore, we are making a call for posters and would be grateful for your help to circulate this call.

Please can you circulate the following call for posters to all your students and early career researchers who may be interested in this opportunity.

Interested candidates should send their poster abstracts with the subject line "IPTA2014 Poster Submission". Abstracts are limited to 300 words. The abstract should provide the following information:

- Title of the poster
- The names/affiliations and contact information of corresponding author
- The names/affiliations of all authors
- An abstract (300 words) describing the content of the poster

Please submit the poster abstract as a word doc or PDF via email to leanne.mullen@iop.org
These proposals will be subject to a quick review by the conference scientific committee.

Deadline: 24th June 2014

Poster size = A0 (841 x 1189 mm)
The dedicated poster session will be held from 16:05-17:05 on Wednesday 27th August. However, poster presenters are welcome to put up their posters earlier and to leave them up for the entire conference.

I hope that this is of some interest and I look forward to receiving poster proposals soon.

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/

From: Stephen Keeling <stephen.keeling@uni-graz.at>
Subject: Imaging with Modulated/Incomplete Data 2014
Date: May 27, 2014 at 11:17:49 AM EDT

We wish to announce that the Workshop,
"Imaging with Modulated/Incomplete Data 2014"
will take place in Graz, Austria, 3. - 5. July 2014
as part of the Special Research Center,
"Mathematical Optimization and Applications in Biomedical Sciences".

Those interested to participate in the workshop are
invited to visit the webpage,
http://math.uni-graz.at/mobis/imaging14/
to obtain further information.

From: Kay Robbins <Kay.Robbins@utsa.edu>
Subject: Postdoctoral position - Data modeling and analysis of brain/body imaging
Date: May 23, 2014

Postdoctoral position - Data modeling and analysis of brain/body imaging

We are seeking a highly motivated postdoctoral fellow to be part of an interdisciplinary research alliance (Cognition and Neuroergonomics Collaborative Research Alliances (CNACTA)) working to develop data analysis and management methods and tools for mobile brain/body imaging data in support of a research program in neuroergonomics (the study of the brain and body at work). The research alliance seeks to discover relationships between brain dynamics (recorded by non-invasive EEG) and motivated behavior (recorded by body motion capture, eye tracking and other sensors) in interactive, information-rich human-system operating environments with an overall goal of developing performance enhancement and monitoring technology.

The ideal candidate will have a strong background in computation, machine learning, and/or visualization and have an interest in applying computational tools to large-scale problems in neuroscience.

The fellow will be based at the University of Texas at San Antonio but will collaborate with a group of Army-funded government and industry researchers in gathering and analyzing data from successively more complex and realistic experiments. The successful applicant will be hired by and will work closely with the CANCTA research group at the University of Texas at San Antonio led by Dr. Kay Robbins of Computer Science and Dr. Yufei Huang of Electrical and Computer Engineering. The fellow will also interact with partner groups at UC San Diego, University of Michigan, Columbia University, University of Osnabrück, and National Chiao Tung University. In addition to participating in this unique large-scale analysis project, the fellow will present the research at conferences and in the open research literature.

Salaries will be competitive. Transitions to permanent government or industry research positions may be available for successful candidates.

Minimum Requirements: Ph.D. with research experience in machine learning and computational approaches to data analysis. It is preferred that the candidate is an American citizen or Permanent resident.

Preferred Qualifications: Strong skills in statistical learning with experience applied to data from complex experimental designs especially in neuroscience such as EEG data.

UTSA is an equal opportunity employer.

For additional information please contact:
Professor Yufei Huang
Department of Electrical and Computer Engineering
University of Texas at San Antonio
One UTSA Circle
San Antonio, TX 78249
210-458-6270
Yufei.huang@utsa.edu

From: Liwei Ning <newsletter@aimsciences.org>
Subject: New IPI vol. 8, no. 2 2014 May issue is now available online
Date: May 22, 2014

Inverse Problems and Imaging May 2014 Volume 8, Number 2
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A variational algorithm for the detection of line segments
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An inner-outer regularizing method for ill-posed problems
Paola Favati, Grazia Lotti, Ornella Menchi and Francesco Romani

Compressive optical deflectometric tomography: A constrained total-variation minimization approach
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Retinal vessel segmentation using a finite element based binary level set method
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A semi-blind source separation method for differential optical absorption spectroscopy of atmospheric gas mixtures
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IPNet Digest Volume 21, Number 07 July 1, 2014

Today's Editor: Patricia (Patti) 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

From: Leanne Mullen <Leanne.Mullen@iop.org>
Subject: IPNet Digest: Volume 21, Number 06
Date: June 27, 2014

Dear All,

Thank you for all your help and support with our upcoming IP conference.
IPTA2014 http://ipta2014.iopconfs.org/IPTA

Registration
Normal Registration closes 21st July
http://ipta2014.iopconfs.org/203372

Conference Programme
The conference programme is now available on the conference website at:
http://ipta2014.iopconfs.org/IOP/media/uploaded/EVIOP/event_458/IPTA2014%20Timetable-3.pdf

Poster Session
Young investigators: including PhD and early career postdoctoral students are invited to present a poster at IPTA2014.
Interested candidates should submit a short abstract for review.
The deadline for poster abstract submission has been extended until 28th July 2014.
Further details can be found at http://ipta2014.iopconfs.org/283995
I hope that this is of some interest and I look forward to receiving further poster proposals.

From: <rbosi@mappi.helsinki.fi>

Subject: Call for minisymposia - Applied Inverse Problems (AIP) conference 2015 - Helsinki
Date: June 6, 2014

Call for minisymposia

The Applied Inverse Problems (AIP) conference will take place in Helsinki, Finland, in May 25-29, 2015. See the conference website for more details:
http://aip2015.fips.fi/.
According to the tradition of the AIP conference series, the majority of talks will be given as part of minisymposia.

A minisymposium has four or eight 30-minute time slots, each with 25 minutes for the talk and 5 minutes for questions and comments from the audience. We welcome minisymposium proposals consisting of a title, a description (not to exceed 100 words), and a list of speakers and the titles of their presentations.

It is recommended that a minisymposium organizer gives the first presentation. Each minisymposium speaker should submit an at most 75-word abstract. The organizing committee will referee minisymposium proposals. The number of minisymposia may be limited to retain an acceptable level of parallelism in the conference sessions.

Participants are limited to presenting at most two talks during AIP in order to maximize the opportunity for all participants to speak. If you are invited to speak in more than one minisymposium, we suggest you use the opportunity to nominate a collaborator to speak about your work.

To ensure balance, AIP prefers that a single individual is the organizer of at most two minisymposia. In addition, AIP discourages minisymposia in which most of the speakers come from the same organization or all co-authors on the papers being presented are from the same organization.

To encourage the submission of more and high-quality minisymposia, a limited number of minisymposia will be selected by the organizing committee according to the number and diversity of speakers as well as the significance of the topics, and the registration fee of one speaker of these selected minisymposia will be waived.

Deadlines:
Submission deadline for minisymposium proposals: September 30, 2014
Final decisions announced for minisymposium proposals: October 30, 2014
Submission deadline for accepted minisymposium abstracts: November 30, 2014

Please use the following form to submit minisymposium proposals:
https://elomake.helsinki.fi/lomakkeet/51897/lomake.html
The form is designed for 4 speakers. If you are proposing an 8-speaker minisymposium, please fill in two times the form writing "(Part 1)" and "(Part 2)" in the field 'Title' of the minisymposium.

If you need more information about minisymposia, please send email to Roberta Bosi <roberta.bosi@helsinki.fi>.

Yours sincerely,

Samuli Siltanen
Chair of the AIP2015 organization committee
President of the Finnish Inverse Problems Society
Professor of Industrial Mathematics
Department of Mathematics and Statistics
University of Helsinki
Finland

From: Denis Maillet <Denis.Maillet@univ-lorraine.fr>
Subject: Metti Advanced School announcement
Date: June 13, 2014

Subject/dates: Advanced School - Thermal Measurements and Inverse Problems (Metti6),
Biarritz, France, March 1-6, 2015
Website: http://metti.u-bordeaux.fr

Techniques for solving inverse problems as well as their applications may seem quite obscure for newcomers to the field. They are met in different areas in the physical sciences and particularly in Heat Transfer. Experimentalists desiring to go beyond traditional data processing techniques for estimating the parameters of a model with the maximum accuracy feel often ill prepared in front of inverse techniques.

In order to avoid biases at different levels of this kind of involved task, it seems compulsory that specialists of measurement inversion techniques, modelling techniques and experimental techniques share a wide common culture and language. These exchanges are necessary to take into account the difficulties associated to all these fields. It is in this state of mind that this school is proposed.

The METTI Group (Thermal MEasurements and Inverse Techniques), which is a division of the French Heat Transfer Society (SFT), has already run or coorganized five similar schools, in the Alps (Aussois) in 1995 and 2005, in the Pyrenees (Bolquère-Odeillo) in 1999, in Rio de Janeiro (2009) and in Roscoff (2011). For this sixth edition the school is again open to participants from the European Community with the support of the Eurotherm Committee and and of CNRS.

The proceedings, that is the texts and the presentations of the Lectures and Tutorials of the preceding school (Metti5), can be found at:
http://www.sft.asso.fr/document.php?pagendx=12299&project=sft

Lectures will be given from 9:00 to 12:30 every morning from Monday to Friday and will cover the following subjects: Inverse problems, parametric estimation, nonlinear estimation,

optimization, regularization, sensors, function estimation, signal processing, model reduction, etc.

Tutorials will be held between 17:00 and 20:30 from Monday to Thursday. They will include an experimental and/or a numerical part. The detailed abstracts of the tutorials will be presented on the school website. Each participant will be asked to choose tutorials according to the schedule, with a maximum number equal to six, at least.

Pre-registration is now open at http://metti.u-bordeaux.fr
Final registration will be confirmed by the local organizing committee according to the CNRS regulations and the constraint of limited attendance.

Submitted by Denis Maillet
recherche (research) : LEMTA -Université de Lorraine & CNRS
2, avenue de la Forêt de Haye - TSA 60604 - 54518 VANDOEUVRE CEDEX - France
Tel: (33) 03 83 59 56 06 (ou 07)
Fax: 03 83 59 55 51
e-mail: denis.maillet@univ-lorraine.fr
enseignement (teaching): ENSGSI
8, rue Bastien Lepage - 54000 Nancy - France

From: QUAN-FANG WANG <quanfangwang@hotmail.com>
Subject: "Optimal Control for Cahn-Hilliard Issues" -monograph
Date: June 30, 2014

It is a pleasure to recommend a book to the IPNet Digest.

Monograph: Optimal Control for Cahn-Hilliard Issues: Basics, Concepts,Tutorials
Author: Quan-Fang Wang

Blurb/Shorttext :
A unified and systematic optimal control theory for nonlinear Cahn-Hilliard equation is perfectly established by the means of distributed control, boundary control and initial control for abstract integral cost function and quadratic cost function in the framework of variational method in Hilbert space under weaker assumptions on exponent of nonlinearity. Computational approach is configured for semi-discrete algorithm (time-continuous, spatial discrete), and is performed using finite element method and updated conjugate gradient method to one-dimensional distributed control case. Parameter identification is slightly touched for unknown parameters appeared at damped and dissipative C-H equation. According to introductory function analysis and physical background, a path way from applied mathematics to control theory is in this monograph for solidly supporting a true solution of optimal control to a broad class binary systems describing by Cahn-Hilliard equation.

* PaperBack: 128 Pages
* Publisher: Lambert Academic Publishing
* Language: English
* ISBN-13: 978-3-659-17742-2

* ISBN-10: 3659177423
* EAN: 9783659177422
* Pulbication date: 2014-03-19

https://www.lap-publishing.com/catalog/details/store/de/book/978-3-659-17742-2/optimal-control-for-cahn-hilliard-issues

Best regards,
Quan-Fang Wang

Book: Optimal Control for Nonlinear Parabolic Distributed Parameter Systems,
Monograph: Practical Application of Optimal Control Theory,
Monograph: Optimal Control for Cahn-Hilliard Issues,
Quan-Fang Wang, LAMBERT Academic Publishing

From: "Gray, Helen" <Helen.Gray@tandf.co.uk>
Subject: Contents, Inverse Problems in Science and Engineering
Date: June 16, 2014

Inverse Problems in Science and Engineering Oct 2014 Vol. 22, No. 7
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Regularization methods for ill-conditioned system of the integral equation of the first kind with the logarithmic kernel Jeng-Tzong Chen, Houde Han, Shyh-Rong Kuo & Shing-Kai Kao

Explicit reconstruction of line-currents and their positions in a two-dimensional parallel conductor structure
Martin Norgren

Multiphysics field analysis and multiobjective design optimization: a benchmark problem
P. Di Barba, I. Dolezel, P. Karban, P. Kus, F. Mach, M.E. Mognaschi & A. Savini

Inverse Problems in Science and Engineering, Vol. 22, No. 7, 03 Oct 2014, is now available online on Taylor & Francis Online (http://www.tandfonline.com/gipe)

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

From: <custserv@iop.org>
Subject: Inverse Problems, Volume 30, Number 7, June 2014
Date: June 24, 2014

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Adaptive refinement and selection process through defect localization for reconstructing an inhomogeneous refraction index Y Grisel, V Mouysset, P A Mazet and J P Raymond

Uniqueness of a one-dimensional phase retrieval problem
Michael V Klibanov and Vladimir G Kamburg

Approximation of penalty terms in Tikhonov functionals—theory and applications in inverse problems
R Strehlow and K S Kazimierski

One dimensional acoustic direct nonlinear inversion using the Volterra inverse scattering series
Jie Yao, Anne-Cécile Lesage, Bernhard G Bodmann, Fazle Hussain and Donald J Kouri

A direct reconstruction method for anisotropic electrical impedance tomography

S J Hamilton, M Lassas and S Siltanen

Global stability for a coupled physics inverse problem
Giovanni Alessandrini

Iterated preconditioned LSQR method for inverse problems on unstructured grids
S R Arridge, M M Betcke and L Harhanen

Increasing stability for the diffusion equation Ru-Yu Lai
------ end -------

http://www.aimsciences.org/journals/contentsListnew.jsp?pubID=685

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

IPNet Digest Volume 21, Number 08 August 31, 2014

Today's Editor: Patricia (Patti) 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

From: <rbosi@mappi.helsinki.fi>
Subject: Second call for minisymposia - Applied Inverse Problems (AIP) conference 2015 - Helsinki
Date: August 25, 2014

Second Call for minisymposia

The Applied Inverse Problems (AIP) conference will take place in Helsinki, Finland, in May 25-29, 2015. See the conference website for more details: http://aip2015.fips.fi/.
According to the tradition of the AIP conference series, the majority of talks will be given as part of minisymposia.

A minisymposium has four or eight 30-minute time slots, each with 25 minutes for the talk and 5 minutes for questions and comments from the audience. We welcome minisymposium proposals consisting of a title, a description (not to exceed 100 words), and a list of speakers and the titles of their presentations.

It is recommended that a minisymposium organizer gives the first presentation. Each minisymposium speaker should submit an at most 75-word abstract. The organizing committee will referee minisymposium proposals. The number of minisymposia may be limited to retain an acceptable level of parallelism in the conference sessions.

Participants are limited to presenting at most two talks during AIP in order to maximize the opportunity for all participants to speak. If you are invited to speak in more than one minisymposium, we suggest you use the opportunity to nominate a collaborator to speak about your work.

To ensure balance, AIP prefers that a single individual is the organizer of at most two

minisymposia. In addition, AIP discourages minisymposia in which most of the speakers come from the same organization or all co-authors on the papers being presented are from the same organization.

To encourage the submission of more and high-quality minisymposia, a limited number of minisymposia will be selected by the organizing committee according to the number and diversity of speakers as well as the significance of the topics, and the registration fee of one speaker of these selected minisymposia will be waived.

Deadlines:
Submission deadline for minisymposium proposals: September 30, 2014
Final decisions announced for minisymposium proposals: October 30, 2014
Submission deadline for accepted minisymposium abstracts: November 30, 2014

Please submit minisymposium proposals using the form linked to this page:
http://aip2015.fips.fi/minisymposia.php
The form is designed for 4 speakers. If you are proposing an 8-speaker minisymposium, please fill in two times the form with "(Part 1)" and "(Part 2)" in the field 'Title' of the minisymposium.

If you need more information about minisymposia, please send email to Roberta Bosi <roberta.bosi@helsinki.fi>.

Yours sincerely,

Samuli Siltanen
Chair of the AIP2015 organization committee
President of the Finnish Inverse Problems Society
Professor of Industrial Mathematics
Department of Mathematics and Statistics
University of Helsinki
Finland

From: Kim Knudsen <kiknu@dtu.dk>
Subject: Post doc position in Hybrid Tomography at the Technical University of Denmark
Date: August 18, 2014

Post doc position in Hybrid Tomography

DTU Compute (www.compute.dtu.dk/english) invites applications for a post doc position starting January 1, 2015, in the section for Scientific Computing. The position is affiliated with the project “Improved Impedance Tomography using Hybrid data” (http://www2.compute.dtu.dk/~kiknu/HybridData/) funded by the Danish Research Council for Independent Research, see http://www.dtu.dk/english/career/job?id=384003b2-919d-45a8-90d9-5368776e98cc.

Candidates must have a PhD degree in applied mathematics, or equivalent academic

qualifications, and must have a strong background in applied mathematics and numerical computations.

Applications must be submitted ONLINE by September 30, 2014. Please open the link in the red bar in the top of the page: "apply online".

More information can be obtained from Assoc. Prof. Kim Knudsen (kiknu@dtu.dk).

Submitted by: Kim Knudsen, Lektor, DTU Compute
Danmarks Tekniske Universitet
Institut for Matematik og Computer Science
Matematiktorvet
Bygning 303 B
2800 Kgs. Lyngby
Direkte telefon 45253026
kiknu@dtu.dk www.compute.dtu.dk/

From: "H. Banks" <htbanks@ncsu.edu>
Subject: our recent book
Date: July 22, 2014

Dear Colleagues,
Attached is some promotional material for a book we published recently with Taylor/Frances/CRCPress.
We hope you might find this of interest for you, your colleagues and/or students.
http://janus.math.msu.edu/ipnet/ipnet_archive/digest_appendices/Appendix_to_Digest_v21n08/

Cheers,
HTB
H.T. Banks
Distinguished University Professor and Drexel Professor of Mathematics
and
Director, Center for Research in Scientific Computation
N.C. State University
Box 8212
2700 Stinson Drive
Raleigh, NC 27695-8212
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email: htbanks@ncsu.edu

From: <custserv@iop.org>
Subject: Inverse Problems, Volume 30, Number 8, August 2014
Date: July 25, 2014

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Walter de Gruyter GmbH
Genthiner Straße 13
10785 Berlin / Germany
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Mail: info@deGruyter.com Internet: www.degruyter.com

From: Romas Baronas <romas.baronas@mif.vu.lt>
Subject: Table of Contents, Nonlinear Analysis: Modelling and Control
Date: August 27, 2014

Nonlinear Analysis: Modelling and Control June 30, 2014 Volume 19, Number 3
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Special Issue dedicated to Professor M. Sapagovas 75th Anniversary
Numerical Analysis for Boundary Value Problems with Nonlocal Conditions
Guest Editors: Mifodijus Sapagovas, Regimantas Ciupaila, Arturas Stikonas

A survey on stationary problems, Green's functions and spectrum of Sturm–Liouville problem with nonlocal boundary conditions
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http://www.mii.lt/NA/

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Observer-based robust adaptive control for uncertain stochastic Hamiltonian systems with state and input delays
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Adaptive motion/force control of nonholonomic mechanical systems with affine constraints
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Higher order nonlocal strain gradient approach for wave characteristics of carbon nanorod
Bollledla Yakaiah, Apparasu Srihari Rao

On existence, multiplicity, uniqueness and stability of positive solutions of a Leslie–Gower type diffusive predator–prey system
Jun Zhou

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
------ end -------

IPNet Digest Volume 21, Number 09 September 29, 2014

Today's Editor: Patricia (Patti) 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

From: Armin Lechleiter <lechleiter@math.uni-bremen.de>
Subject: IPNet Digest: Announcement of a workshop next spring
Date: September 18, 2014

Workshop on Inverse Problems in Wave Propagation - IWaP 2015
University of Bremen, Germany, 7.4.2015 - 10.4.2015

The workshop on Inverse Problems in Wave Propagation aims to gather researchers working in the broad field of inverse problems linked to waves, providing a place to discuss novel methods, current directions, and future trends in the field.

The workshop highlights the mathematical and numerical analysis of methods tackling inverse problems linked to time-harmonic or time-dependent wave equations. Topics include for instance parameter identification for complex systems governed by differential equations, iterative and qualitative methods in inverse scattering, integral equation methods, optimization techniques, inverse eigenvalue problems, as well as the application of inversion algorithms in scientific, engineering, or industrial problems.

More information on the workshop can be found at the web site

http://www.math.uni-bremen.de/zetem/iwap2015

We would be pleased to welcome you in April 2015 in Bremen!

Best wishes,

Armin Lechleiter

From: Otmar Scherzer <otmar.scherzer@univie.ac.at>
Subject: Nominations for the fifth Calderon prize
Date: September 12, 2014

The Inverse Problems International Association (IPIA) will award the fifth Calderon Prize to a researcher under the age of 40 who has made distinguished contributions
to the field of inverse problems broadly defined.

The Calderon Prize Committee consists of Professors Gang Bao, Fioralba Cakoni, Mikko Salo, Otmar Scherzer (chair), and John Schotland. Previous winners of the award are Matti Lassas (2007), Martin Burger (2009), Guillaume Bal (2011) and Mikko Salo (2013).

IPIA will present the award at the Applied Inverse Problems Conference 2015 to be held in Helsinki, Finland, May 25-29, 2015. The award will include a certificate, a $500 prize, and an invitation to give a plenary lecture at the conference. The prize also includes reimbursement for reasonable travel expenses to Helsinki.

Besides a nomination letter please include a complete CV of the nominee and a list of publications.
Also additional supporting letters can be included. The Calderon Prize Committee can also solicit nominations. The deadline for nominations is January 31st, 2015.

Nominations should be send to Professor Otmar Scherzer, to the e-mail address <otmar.scherzer@univie.ac.at>.

From: Albert Lawrence <albert.rick.lawrence@gmail.com>
Subject: Postdoctoral Position
Date: September 2, 2014

A post-doctoral position in electron tomography is now open at the Center for Research in Biological Systems, University of California, San Diego. Topics of interest include inverse problems, compressive sensing and three dimensional reconstruction.

Applicants should have a good knowledge of image processing and a strong interest in applying this knowledge to image data obtained during the course of research in systems biology. The ability to write code in Matlab and C/C++ will be essential.

Work will be mainly conducted at The National Center for Microscopy and Imaging Research (NCMIR), a component of the Center for Research in Biological Systems. NCMIR has a long history of establishing international scientific collaborations in basic biology, biomedical research and the imaging sciences. In these endeavors the primary goal has been the development of new technologies

to advance our understanding of fundamental biological processes relating to biomedical research and provide more effective therapeutic approaches based on these new scientific insights.

This position will particularly entail collaboration with researchers at the The National Biomedical Computational Resource (NBCR) and members of the Mathematics Department at UCSD who conduct dynamical modeling based on microscopy data obtained at NCMIR. Large scale scientific computation and parallel processing constitute a significant component of work conducted at NBCR.

The position will be funded for two years and a competitive salary is available for qualified candidates.

Interested candidates should contact Dr Albert Lawrence via email at aflawrence@ucsd.edu. Further information is available at http://ncmir.ucsd.edu/

From: "A.H. Krim" <ahk@ncsu.edu>
Subject: Post-doc-position in vision and imaging
Date: August 16, 2014

Dear colleagues,
Please consult the ad for a post-doc position in EE/applied math.

https://jobs.ncsu.edu/postings/38436

Please contact me with any question you may have.
Best regards
H. Krim

From: Petra Markert-Autsch <petra.markert-autsch@mathematik.uni-wuerzburg.de>
Subject: Open position for a Junior Professorship for Mathematical 4D Microscope Modeling, Image Analysis and Data Processing, JMU Wuerzburg, Germany
Date: September 25, 2014

The Chair of Scientific Computing at the University of Wuerzburg, Germany
would like to announce a Junior Professorship for Mathematical 4D Microscope Modeling, Image Analysis and Data Processing as from 01.04.2015

Wanted is a young scientist working in the field of applied mathematics with experience in the field of mathematical modeling, stochastic analysis, data mining, and mathematical image processing.
This personality should have an excellent profile in teaching and research with internationally visible research achievements. This professorship will contribute to the research and development of interdisciplinary research between mathematics and biology, physics, computer science, and medicine and the networking of these areas while also contributing to the scientific developments within the Chair of Scientific Computing, Mathematik IX.

The candidate is required to have successfully completed her/his graduate studies and received an excellent doctoral degree. Post-doc experience is desired.

A detailled description can be found under the following link:
http://www.mathematik.uni-wuerzburg.de/pdf/W1JuniorMathematik_e_1409.pdf

Submitted by: Petra Markert-Autsch
Sekretariat Lehrstuhl fÃ¼r Mathematik IX (Wissenschaftliches Rechnen)
Secretary Chair of Mathematics IX (Scientific Computing)
Prof. Dr. Alfio Borzi
UniversitÃ¤t WÃ¼rzburg, Campus Hubland Nord, Emil-Fischer-StraÃŸe 30, 97074 WÃ¼rzburg, Germany
Tel. (0931) 31-85362 Fax: (0931) 31-81491
petra.markert-autsch@mathematik.uni-wuerzburg.de

From: Denis Sidorov <contact.dns@gmail.com>
Subject: New book on Integral Dynamical Models
Date: September 2, 2014

Dear Colleagues,

Attached is the flyer of our book "Integral Dynamical Models: Singularities, Signals and Control" which is in press with World Scientific/Imperial College Press, Series on Nonlinear Sciences / Series A, Vol. 87. [See link below. -Ed.]

I hope you might find this monograph is of interest for you, your colleagues and postgrads.

Best Regards,
Denis Sidorov

http://www.worldscientific.com/worldscibooks/10.1142/9278

Submitted by: Dr Denis Sidorov, Senior Research Fellow
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Phone: +73952 500 646 ext 258 Fax: + 73952 426 796
http://sei.irk.ru/en/

From: e-Book <editorial@marketing-books07.com>
Subject: eBook on "Digital Signal Processing in Experimental Research
Volume 2: Fast Transform Methods in Digital Signal Processing"
Date: September 16, 2014

I wish to introduce my new Ebook entitled
Digital Signal Processing in Experimental Research

Volume 2: Fast Transform Methods in Digital Signal Processing.

I am confident that this Ebook will be extremely useful for researchers and working professionals in experimental sciences who deal with processing experimental data. The book synopsis and content description are given below. Please recommend this book to your colleagues, students and library. One can also purchase individual chapters of the Ebook: for more details please click here:

http://ebooks.benthamsciencepublisher.org/book/9781608052301/

Sincerely,
Leonid Yaroslavsky
Tel Aviv University
Israel

Digital Signal Processing in Experimental Research Volume 2: Fast Transform Methods in Digital Signal Processing

http://ebooks.benthamsciencepublisher.org/book/9781608052301/

This ebook covers, in a single volume, fast transform methods theory, algorithms, and applications. It is the result of lecturing by the author in a number of universities in Europe, USA and Japan and has been accumulated over the author€™s working lifetime of more than 40 years. This experiencehas now culminated in a comprehensive mix of theoretical development and practical uses of various transform based signal processing methods, the foundation of signal processing.

Readers will find in the book many theoretical and practical approaches not covered elsewhere.Some of the most immediate applications, such as detection and analysis of periodicities in data, signal denoising and deconvolution, signal resampling, precise differentiation and integration are covered and supported by concrete algorithms in this book. Other potential applications are supported by a tour of the theory and mathematical abstraction.

The book is addressed to a broad circle of experimentalists, researchers and students that are not regularly educated in signal processing and work in various fields ofexperimental sciences ranging from experimental physicsto metrology and to biophysics and biomedical engineering. It can also be used as a textbook in courses on digital signal processing.

Contents

Chapter 5: Signal Spectral Analysis
Chapter 6: Signal Restoration by Means of Linear Filtering
Chapter 7: Numerical Differentiation and Integration
Chapter 8: Efficient Algorithms

Publication Year: 2011
eISBN: 978-1-60805-230-1

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From: <noreply@iopscience.org>
Subject: Inverse Problems, Volume 30, Number 9, September 2014
Date: September 3, 2014

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On parameter identification in stochastic differential equations by penalized maximum likelihood
Fabian Dunker, and Thorsten Hohage

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On the identification of defects in a periodic waveguide from far field data
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Near-field imaging of scattering obstacles with the factorization method
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Effectivized HÃ¶lder-logarithmic stability estimates for the Gel€™fand inverse problem
M I Isaev, and R G Novikov

A non-gradient-based energy minimization approach to the image denoising problem
Tibor LukiÄ‡, and JoviÅ¡a Å½uniÄ‡

http://iopscience.iop.org/0266-5611/30/9/email-alert/1140512245

From: Susan Cummins <newsletter@aimsciences.org>
Subject: New IPI vol. 8, no. 3 2014 August issue is now available online
Date: September 11, 2014

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Weighted-average alternating minimization method for magnetic resonance image reconstruction based on compressive sensing
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Submitted by: Susan Cummins,
Publication Editor

American Institute of Mathematical Sciences
Springfield, MO 65801 USA Phone: 417-987-6421
------ end -------

IPNet Digest Volume 21, Number 10 November 1, 2014

Today's Editor: Patricia (Patti) 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: Announcement of School
From: Maria Paz Calvo <maripaz@mac.uva.es>
Date: October 9, 2014

School: New Perspectives in Markov Chain Monte Carlo"
June 8-12, 2015
Univerisity of Valladolid, Spain

Markov Chain Monte Carlo (MCMC) methods are undoubtedly among the most important algorithms in science. The school "New Perspectives in Markov Chain Monte Carlo is aimed at providing a survey of several recent developments in MCMC. There will be three courses of lectures taught by leading researchers; additionally, some participants will be given the opportunity of presenting their own results.

The school is addressed to mathematicians, statisticians, and scientists interested in MCMC. PhD students and postdoctoral researchers attending the school may be financially supported by the organization.

Further information can be founded at http://wmatem.eis.uva.es/npmcmc

Submitted by: Mari Paz Calvo, Professor of Applied Mathematics
Universidad de Valladolid, Spain

Subject: Job opening- Junior Professor
From: Alfio Borzi <alfio.borzi@mathematik.uni-wuerzburg.de>
Date: October 19, 2014

Junior Professorship for

Mathematical 4D Microscope Modeling, Image Analysis and Data Processing

Institut for Mathematics
University of WÃ¼rzburg
Germany

Official Announcement (in English and German)
http://www.mathematik.uni-wuerzburg.de/pdf/W1JuniorMathematik_e_1409.pdf
http://www.mathematik.uni-wuerzburg.de/pdf/W1JuniorMathematik_1409.pdf

Application should be sent by December 1st, 2014.

Thank you very much!
Best regards

Alfio Borzi

Subject: New book: Probabilistic Information Transfer
From: SociÃ©tÃ© de Calcul MathÃ©matique SA <scm.sa.2014@orange.fr>
Date: October 6, 2014

Dear Sir, dear Madam, dear Colleagues,

We are glad to introduce the new book by Olga Zeydina and Bernard Beauzamy:

Probabilistic Information Transfer

A book you will be proud to have for yourself and to show to your friends!

ISBN: 978-2-9521458-6-2, ISSN : 1767-1175. Size 15,3 x 24 cm. Hardcover, 208 pages.

In real life situations, one rarely has desirably detailed information.
It is sometimes incomplete, sometimes corrupted, or with missing or erroneous data.
Conversely, some pieces of information do exist. Therefore, there is a natural wish: to try to use the existing information in order to reconstruct some missing items.
However, this should be done with two constraints:
First, one should not add any artificial information, such as model assumptions (for instance, that some growth is linear, or that some law is gaussian);
Second, the result should be of probabilistic nature: we do not want a precise value for the reconstruction, but a probability law, which allows estimation of the uncertainties.

This is precisely the topic of this book.
We show how to "propagate" the information, from a place where it exists to a place where we want to use it; this propagation deteriorates with the distance, somewhat as a gravitational field decreases with the distance.

The book is organized in three parts: the first part presents the basic rules, accessible with no specific expertise in probabilities; the second presents the applications to real world problems, and the third part gives the theory.

This is a situation not so common these days: a new mathematical theory, developed by us, in order to meet a need initially expressed by the industry (namely Framatome, 2003).
Existing applications are now numerous: classifying industrial objects (Air Liquide), evaluating a pollution (Total), estimating water quality in rivers (European Environment Agency), controlling the safety in a nuclear reactor (Institut de Radioprotection et de Surete Nucleaire), and so on.

In order to learn more about the book and see an order form, please see:
http://scmsa.eu/archives/SCM_PIT_order.htm

In order to see the readers' comments, please see:
http://scmsa.eu/archives/PIT_readers_comments.pdf

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In order to discover the research program "Robust Mathematical Modeling" (more than 70 institutions worldwide), please visit:
http://scmsa.eu/robust.htm

Thank you for your interest

Prof. Bernard Beauzamy
Chairman and CEO, Societe de Calcul Mathematique SA
111 Faubourg St HonorÃ© 75008 Paris - France

Subject: Inverse Problems, Volume 30, Number 10, October 2014
From: <noreply@iopscience.org>
Date: September 30, 2014

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Stability estimate for the relativistic SchrÃ¶dinger equation with time-dependent vector potentials
Ricardo Salazar

Exact reconstruction formula for the spherical mean Radon transform on ellipsoids
Markus Haltmeier

Reconstruction of shapes and refractive indices from backscattering experimental data using the adaptivity
Larisa Beilina, Nguyen Trung ThÃ nh, Michael V Klibanov, and John Bondestam Malmberg

Parameter estimation for stiff deterministic dynamical systems via ensemble Kalman filter
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Simultaneous reconstruction of shape and generalized impedance functions in electrostatic imaging
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Parameter sampling capabilities of sequential and simultaneous data assimilation: II. Statistical analysis of numerical results
Kristian Fossum, and Trond Mannseth

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Bayesian inference for hybrid discrete-continuous stochastic kinetic models
Chris Sherlock, Andrew Golightly, and Colin S Gillespie

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Learning about physical parameters: the importance of model discrepancy
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Bayesian parameter estimation of core collapse supernovae using gravitational wave simulations
Matthew C Edwards, Renate Meyer, and Nelson Christensen

An efficient approach for computing optimal low-rank regularized inverse matrices
Julianne Chung, and Matthias Chung

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Graham Cox

Inverse scattering in a Bayesian framework: application to microwave imaging for breast cancer detection
Leila Gharsalli, Hacheme Ayasso, Bernard DuchÃªne, and Ali Mohammad-Djafari

Toward an enhanced Bayesian estimation framework for multiphase flow soft-sensing
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Bayesian anomaly detection in heterogeneous media with applications to geophysical tomography
Martin Simon

Solving large-scale PDE-constrained Bayesian inverse problems with Riemann manifold Hamiltonian Monte Carlo
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Likelihood-informed dimension reduction for nonlinear inverse problems
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Sparse source travel-time tomography of a laboratory target: accuracy and robustness of anomaly detection
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Bayesian compressive sensing for ultrawideband inverse scattering in random media
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Efficient trans-dimensional Bayesian inversion for geoacoustic profile estimation
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Daniela Calvetti, Oliver Ernst, and Erkki Somersalo

Sequential Monte Carlo samplers for semi-linear inverse problems and application to magnetoencephalography
Sara Sommariva, and Alberto Sorrentino

Subject: Table of Contents, 'Journal of Inverse and Ill-posed Problems'
From: <noreply@degruyter.com
Date: October 1, 2014

Journal of Inverse and Ill-posed Problems October 2014 Vol. 22, Issue 5
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Walter de Gruyter GmbH

Genthiner StraÃŸe 13, 10785 Berlin / Germany
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Mail: info@deGruyter.com Internet: www.degruyter.com
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IPNet Digest Volume 21, Number 11 December 1, 2014

Today's Editor: Patricia (Patti) 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

From: "Dolan, Kirk" <dolank@msu.edu>
Subject: 28th Inverse Problems Symposium 2015
Date: November 2, 2014

You are invited to submit an abstract for the 28th Inverse Problems Symposium 2015. More information on abstract submission will come soon.
Website: http://www.inverseproblems2015.org/
Conference will be held May 31-June 2, 2015, Michigan State University, East Lansing, MI.
Timetable:

- Abstract submission deadline: February 1, 2015
- Registration opens: January 5, 2015
- Abstract acceptance notification: March 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, IPS 2015 Chairman
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: Denis Maillet <Denis.Maillet@univ-lorraine.fr>
Subject: Advanced School - Thermal Measurements and Inverse Problems (Metti6), Biarritz, France, March 1-6, 2015

Date: November 2, 2014

Techniques for solving inverse problems as well as their applications may seem quite obscure for newcomers to the field. They are met in different areas in the physical sciences and particularly in heat Transfer. Experimentalists desiring to go beyond traditional data processing techniques for estimating the parameters of a model with the maximum accuracy feel often ill prepared in front of inverse techniques.

In order to avoid biases at different levels of this kind of involved task, it seems compulsory that specialists of measurement inversion techniques, modelling techniques and experimental techniques share a wide common culture and language. These exchanges are necessary to take into account the difficulties associated to all these fields. It is in this state of mind that this school is proposed.

The METTI Group (Thermal MEasurements and Inverse Techniques), which is a division of the French Heat Transfer Society (SFT), has already run or coorganized five similar schools, in the Alps (Aussois) in 1995 and 2005, in the Pyrenees (BolquÃ¨re-Odeillo) in 1999, in Rio de Janeiro (2009) and in Roscoff (2011). For this sixth edition the school is again open to participants from the European Community with the support of the Eurotherm Committee and and of CNRS.

Lectures will be given from 9:00 to 12:30 every morning from Monday to Friday and will cover the following subjects: Inverse problems, parametric estimation, nonlinear estimation, optimization, regularization, sensors, function estimation, signal processing, model reduction, etc.

Tutorials will be held between 17:00 and 20:30 from Monday to Thursday. They will include an experimental and/or a numerical part.

The detailed abstracts of the tutorials will be presented on the school website. Each participant will be asked to choose tutorials according to the schedule, with a maximum number equal to six, at least.

Pre-registration is now open at http://metti.u-bordeaux.fr
The program is given in the same website.

Final registration will be confirmed by the local organizing committee according to the CNRS regulations and the constraint of limited attendance.

Submitted by Denis Maillet
LEMTA Lab, University of Lorraine
denis.maillet@univ-lorraine.fr

From: Johan Suykens <Johan.Suykens@esat.kuleuven.be>
Subject: Postdoc positions ERC Advanced Grant A-DATADRIVE-B at KU Leuven
Date: November 28, 2014

The research group KU Leuven ESAT-STADIUS is currently offering 2 Postdoc positions (1-year, extendable) within the framework of the ERC 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 at the website https://icts.kuleuven.be/apps/jobsite/vacatures/53177117?lang=en by including CV and motivation letter. For further information on these positions you may contact johan.suykens@esat.kuleuven.be.

From: Luciano Pandolfi <luciano.pandolfi@polito.it>
Subject: book: Distributed Systems with Persistent Memory: Control and Moment Problems
Date: November 20, 2014

New book:
Distributed Systems with Persistent Memory: Control and Moment Problems
SpringerBriefs in Control, Automation and Robotics

L. Pandolfi

The book presents the main ideas used up to now in the study of linear control problems for distributed systems with persistent memory. This family of systems is encountered in several applications, including thermodynamics and viscoelasticity.

- Operator methods are presented in Chapter 2;
- Moment methods are used in the study of controllability in Chapter 4;
- The observation inequality for systems with persistent memory is studied in Chapter 6.

Chapter 3 presents an account of moment theory as used in the study of exact controllability while chapter 1 is an introductory chapter, intended to familiarize the readers with the systems studied in this book. It contains also preliminaries of Functional Analysis.

Problems are provided for the material treated in every chapter.

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Submitted by: Luciano Pandolfi, Dipartimento di Scienze Matematiche
"G. L. Lagrange", Politecnico di Torino
http://calvino.polito.it/~lucipan/

From: Romas Baronas <romas.baronas@mif.vu.lt>
Subject: Table of Contents, Nonlinear Analysis: Modelling and Control
Date: November 24, 2014

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Symbolic computation of exact solutions for fractional differential-difference equation models
Ismail Aslan

An exhaustive search approach for chemical kinetics experimental data fitting, rate constants optimization and confidence interval estimation
Audrius LaurynÄ—nas, Juozas Kulys

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 -------