

From: "Inverse Problems Network (IPNet)" <ipnet@math.msu.edu>
Subject: IPNet Digest: Volume 24, Number 02
Date: January 31, 2017 at 2:25:13 PM EST
To: <ipnet@list.msu.edu>

IPNet Digest Volume 24, Number 02 January 31, 2017

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

Today's Topics:

Workshop: Mathematical Imaging with Partially Unknown Models
Call for Abstracts: 12th International EnKF Workshop
Postdoctoral Position: Research in Computational Inverse Problems
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Submissions for IPNet Digest:
Mail to ipnet-digest@math.msu.edu

Information about IPNet:
<http://ipnet.math.msu.edu>

From: Carola-Bibiane Schoenlieb <cbs31@cam.ac.uk>
Subject: Workshop: Mathematical imaging with partially unknown models - Cambridge,
20-21 February 2017
Date: January 10, 2017

Dear All,

It is my pleasure to invite you to the Cambridge - Heriot Watt interdisciplinary
workshop on

Mathematical imaging with partially unknown models
<http://www.ccimi.maths.cam.ac.uk/events/cambridge-heriot-watt-interdisciplinary-data-science-workshop-mathematical-imaging-partially-unknown-models/>.

which will be held on 20 to 21 February 2017 at the University of Cambridge.

Plenary speakers are:

- Gabriel Peyré (Université Paris-Dauphine)
- Silvia Villa (Istituto Italiano di Tecnologia and Massachusetts Institute of Technology)
- Yves Wiaux (Heriot-Watt University)
- Juan Carlos de los Reyes (Escuela Nacional Politécnica de Quito)
- John Aston (University of Cambridge)

- Samuli Siltanen (University of Helsinki)

Jointly organised by Marcelo Pereyra (Heriot-Watt) and Carola-Bibiane Schönlieb (Cambridge), alongside local organiser Martin Benning (Cambridge).

For more information and for instructions on how to register, please visit the workshop website at <http://www.ccimi.maths.cam.ac.uk/events/cambridge-heriot-watt-interdisciplinary-data-science-workshop-mathematical-imaging-partially-unknown-models/>.

On the first day of the meeting there will be a poster session during lunch time. When registering for the event, please indicate your interest for presenting a poster, including a poster title and short abstract.

The meeting is supported by an LMS Conference grant, the School of Mathematical and Computer Sciences of Heriot-Watt University, the Cantab Capital Institute for the Mathematics of Information, and the EPSRC Centre for Mathematical and Statistical Analysis of Multimodal Clinical Imaging at the University of Cambridge.

All the best,
Carola Schönlieb

From: Xiaodong Luo <xilu@iris.no>
Subject: The 12th International EnKF Workshop: Call for abstracts
Date: January 5, 2017

The 12th International EnKF Workshop
June 12-14, 2017
Solstrand Hotel & Bad, OS
Norway

CALL FOR ABSTRACTS

The ensemble Kalman filter (EnKF) and its many variants have been proven effective for data assimilation in large models, including those in atmospheric, oceanic, hydrologic, and petroleum reservoir systems. By bringing together technical experts, practitioners, researchers and students for presentations and informal interchange of information, we aim to share research results and suggest important challenges that have yet to be addressed. We welcome abstracts on both new developments and applications of data assimilation algorithms, including but not limited to, ensemble-based methods and other Bayesian and/or nonlinear approaches. Abstracts on applications are encouraged to discuss limitations and suggest further developments of the assimilation methods. The accepted abstracts will be scheduled for either oral presentation or poster presentation. This workshop does not publish full papers, so submission of full paper is not required. To facilitate the workshop organization, we encourage our participants to submit abstracts with full information of all authors

(e.g., name, affiliation, etc.)

Abstract deadline: March 1st, 2017

Confirmed invited speakers:

Andreas Størksen Stordal, IRIS
Dan Crisan, Imperial College London
John Harlim, The Pennsylvania State University
Peter Jan van Leeuwen, University of Reading
Chris Snyder, University Corporation for Atmospheric Research (UCAR)

Scientific committee:

Geir Evensen (geve@iris.no), IRIS
Xiaodong Luo (xilu@iris.no), IRIS
Alberto Carrassi (alberto.carrassi@nersc.no), NERSC
Dean Oliver (dean.oliver@uni.no), Uni Research CIPR
Remus Hanea (rhane@statoil.com), Statoil and University of Stavanger (UiS)

Organizing Committee

Xiaodong Luo (xilu@iris.no), IRIS
Randi Valestrand (rv@iris.no), IRIS
Mette S.Myhre (mes@iris.no), IRIS

Further information

For further information about the workshop, please visit the webpage:
<http://www.iris.no/enkf/enkf-homepage>

Contact information

For general queries please contact Xiaodong Luo
E-mail: xilu@iris.no Tel: (+47) 482 22 859
IRIS, Thormøhlensgate 55, 5008 Bergen, Norway

From: Ville Kolehmainen <ville.kolehmainen@uef.fi>
Subject: post doc position
Date: January 23, 2017

Postdoctoral Researcher/Project Researcher on Computational Inverse Problems,
Department of Applied Physics, University of Eastern Finland, Kuopio, Finland

We are seeking for a highly motivated researcher to work on development of computational methods for the inverse problem of electrical impedance tomography. The researcher will work in a consortium initiative between three Finnish universities for the development of electrical imaging and classification of stroke. The position will be located at the Computational Physics and Inverse Problems research group, which is

affiliated with the Centre of Excellence in Inverse Problems Research of the Academy of Finland. For further information of the research group, see <http://venda.uef.fi/inverse/FrontPage>

A person to be appointed as a postdoctoral researcher/project researcher shall hold a suitable doctoral degree (e.g. applied mathematics, scientific computing, applied/computational physics). If the employee has been awarded his or her doctoral degree less than five years ago, the post will be one of a Postdoctoral Researcher. If the doctoral degree has been awarded more than five years ago, the post will be one of a Project Researcher.

A successful candidate is expected to have background on computational inverse problems and/or scientific computing, strong programming skills in some commonly used programming languages (e.g. Matlab, Python, C/C++), fluent written and spoken English, ability to work both independently and as part of a consortium, and strong interest in research. Experience in uncertainty quantification, finite element methods and/or numerical optimization are beneficial for the position. Persons graduating with a Ph.D. in the near future are also encouraged to apply. However, they are expected to hold a PhD degree by the starting date of the position.

The position will be filled for a one year term from April 1, 2017 (or as agreed). Continuation for two more years is possible. The continuation of the position will be agreed separately. For further administrative information and application process, see <http://www.uef.fi/en/uef/en-open-positions>

The electronic application should contain the following appendices:

1. a motivation letter including names and contact information of two referees
2. a résumé or CV
3. a list of publications
4. copies of the applicant's academic degree certificates/ diplomas, and copies of certificates / diplomas relating to the applicant's language proficiency, if not indicated in the academic degree certificates/diplomas

The application needs to be submitted no later than February 19, 2017 (by 24:00 EET) by using the electronic application form at <http://www.uef.fi/en/uef/en-open-positions>

For further information on the position, please contact: Professor Ville Kolehmainen, tel. +358 40 355 2054, email: ville.kolehmainen@uef.fi.

Submitted by: Ville Kolehmainen, Ph.D., Professor, Department of Applied Physics
University of Eastern Finland, FI-70211 Kuopio Finland

From: <noreply@iopscience.org>

Subject: Inverse Problems, Volume 33, Number 2, February 2017

Date: January 16, 2017

A note on the MUSIC algorithm for impedance tomography
Martin Hanke

The Reshetnyak formula and Natterer stability estimates in tensor tomography
Vladimir A Sharafutdinov

Iterative methods for solving coefficient inverse problems of wave tomography in models with attenuation
Alexander V Goncharsky, and Sergey Y Romanov

Preconditioned alternating direction method of multipliers for inverse problems with constraints
Yuling Jiao, Qinian Jin, Xiliang Lu, and Weijie Wang

Time and band limiting for matrix valued functions: an integral and a commuting differential operator
F A Grünbaum, I Pacharoni, and I Zurrián

Adaptive eigenspace method for inverse scattering problems in the frequency domain
Marcus J Grote, Marie Kray, and Uri Nahum

Randomized algorithms for high quality treatment planning in volumetric modulated arc therapy
Yu Yang, Bin Dong, and Zaiwen Wen

Size estimates of an obstacle in a stationary Stokes fluid
E Beretta, C Cavaterra, J H Ortega, and S Zamorano

Direct inversion from partial-boundary data in electrical impedance tomography
Andreas Hauptmann, Matteo Santacesaria, and Samuli Siltanen

On optimal solutions of the constrained ℓ_0 regularization and its penalty problem
Na Zhang, and Qia Li

Looking for central tendencies in the conformational freedom of proteins using NMR measurements
Fabrizio Clarelli, and Luca Sgheri

On relaxed averaged alternating reflections (RAAR) algorithm for phase retrieval with structured illumination
Ji Li, and Tie Zhou

Identifiability of electrical and heat transfer parameters using coupled boundary measurements
Yifan Chang

<http://iopscience.iop.org/issue/0266-5611/33/2>

From: "Davies, Rosalind" <Rosalind.Davies@tandf.co.uk>

Subject: Inverse Problems in Science and Engineering, Volume 25, Issue 4, April 2017
is now available online on Taylor & Francis Online

Date: January 25, 2017

Inverse Problems in Science and Engineering April 2017 Volume 25, Issue 4
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A three-dimensional image reconstruction algorithm for electrical impedance tomography
using planar electrode arrays

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Dynamic estimation of the modeling error statistics in Diffuse Optical Tomography

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A global domain/boundary integral equation method for the inverse wave source and
backward wave problems

Chein-Shan Liu

Detection and identification of multiple unknown time-dependent point sources
occurring in 1D evolution transport equations

Adel Hamdi

Regularization and the inflection point method for sensor signal in gas concentration
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Łukasz Płociniczak, Monika Maciejewska & Andrzej Szczurek

Inverse heat transfer analysis of radiator central heating systems inside residential
buildings using sensitivity analysis

Ardeshir Moftakhari, Cyrus Aghanajafi & Ardalan Moftakhari Chaei Ghazvin

Inverse problem in the hyperthermia therapy of cancer with laser heating and plasmonic
nanoparticles

Bernard Lamien, Helcio Rangel Barreto Orlande & Guillermo Enrique Eliçabe

<http://www.tandfonline.com/toc/gipe20/25/4>

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