

From: "Inverse Problems Network (IPNet)" <ipnet@math.msu.edu>
Subject: IPNet Digest: Volume 23, Number 12
Date: November 29, 2016 at 2:54:16 PM EST
To: <ipnet@list.msu.edu>

IPNet Digest Volume 23, Number 12 November 29, 2016

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

Today's Topics:

Research Fellow: Enabling Quantification of Uncertainty for Inverse Problems
University Lecturer: Statistics and Mathematics of Information, Cambridge, UK
University Lectureship: Climate Modelling, Cambridge UK
Table of Contents: Inverse Problems in Science and Engineering
Table of Contents: Inverse Problems and Imaging
Table of Contents: Journal of Inverse and Ill-posed Problems

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

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

From: Heather Craddock <Heather.Craddock@Penna.com>
Subject: Research Fellow EQUIP (Enabling Quantification of Uncertainty for Inverse Problems)
Date: November 21, 2016

University of Warwick
Department of Mathematics

Research Fellow

£29,301-£38,183 per annum

Ref: 78765-116

Fixed term contract for 12 months. Applications are invited for a number of postdoctoral research fellow positions to work on the £2.6m EPSRC-funded Programme Grant EQUIP (Enabling Quantification of Uncertainty for Inverse Problems). Posts will be based at the University of Warwick, at Heriot-Watt University, or at Imperial College. Each will have a one year duration, and may start at a mutually agreed date in the calendar year 2017. EQUIP tackles a number of key methodological and theoretical challenges arising in the solution of statistical inverse problems, primarily driven by applications in subsurface inversion such as groundwater flow, oil and gas reservoirs and carbon sequestration but researchers with interest in the solution of inverse problems arising in other application domains, such as biology,

medicine and the social sciences are also encouraged to apply.

The EQUIP team comprises Mike Christie (Petroleum Engineering, Heriot-Watt), Charlie Elliott (Mathematics, Warwick), Mark Girolami (Statistics, currently Warwick but moving to Imperial College in January 2017), Gareth Roberts (Statistics, Warwick). There is also the possibility of spending part of the postdoctoral appointment at Caltech working with Andrew Stuart who is a co-investigator on the grant. Applicants with expertise in the areas of inverse problems, numerical analysis, computational partial differential equations, computational statistics and theoretical statistics are encouraged to apply. You should apply directly to the institution where you wish to be based, although if you are flexible you are strongly encouraged to apply to all of Imperial College, Heriot-Watt and Warwick. Your application should include a CV and list of publications. You should also send a research statement by email to Ann Hume, Departmental Secretary, Mathematics Institute, University of Warwick at MathematicsPA@warwick.ac.uk and ensure that your 3 referees send their references to the same email address by the closing date. Interviews for all posts are expected to be conducted at the University of Warwick on, or around, January 11th 2017.

For further details and to apply online please visit our website below.

Minicom users: 024 7615 0554

Closing date: 12 December 2016

[https://atsv7.wcn.co.uk/search_engine/jobs.cgi?SID=](https://atsv7.wcn.co.uk/search_engine/jobs.cgi?SID=b3duZXI9NTA2MjQ1MiZvd25lcnR5cGU9ZmFpciZzZWZb249MCZicmFuZF9pZD0wJiZzdWJtaXRTZWZyY2hGb3JtPTEmcmVxc2lnPTE0Nzg4NjM5NjItZTY1YzMzMWY4OTJmZjdlY2FjMTRiYjU0MjI5OWE2YjQ1ZTdYjllMg==)

[b3duZXI9NTA2MjQ1MiZvd25lcnR5cGU9ZmFpciZzZWZb249MCZicmFuZF9pZD0wJiZzdWJtaXRTZWZyY2hGb3JtPTEmcmVxc2lnPTE0Nzg4NjM5NjItZTY1YzMzMWY4OTJmZjdlY2FjMTRiYjU0MjI5OWE2YjQ1ZTdYjllMg==](https://atsv7.wcn.co.uk/search_engine/jobs.cgi?SID=b3duZXI9NTA2MjQ1MiZvd25lcnR5cGU9ZmFpciZzZWZb249MCZicmFuZF9pZD0wJiZzdWJtaXRTZWZyY2hGb3JtPTEmcmVxc2lnPTE0Nzg4NjM5NjItZTY1YzMzMWY4OTJmZjdlY2FjMTRiYjU0MjI5OWE2YjQ1ZTdYjllMg==)
The University Values Diversity

Submitted by : Heather Craddock, Account Co-Ordinator- Delivery Team, Recruitment Solutions
02476 214 423

From: Carola-Bibiane Schönlieb <cbs31@cam.ac.uk>

Subject: University Lecturer in the Statistics and Mathematics of Information in Cambridge, UK

Date: November 1, 2016

University Lecturer in the Statistics and Mathematics of Information, University of Cambridge, UK

Applications are invited for a University Lectureship in the Statistics and Mathematics of Information to commence on 1st October 2017 or by agreement. Appointment will be made at an appropriate point on the University scale and will be for a probationary period of five years with appointment to the retiring age thereafter, subject to satisfactory performance.

Candidates should hold a PhD or equivalent in statistics, mathematics or a closely related subject, and have an outstanding record of research in

mathematical aspects of data science. Preference will be given to candidates with a research focus in statistics. Willingness to engage in an interdisciplinary and cross-cutting research is very desirable.

This Lectureship is based in the Statistical Laboratory and is affiliated with the new Cantab Capital Institute for Mathematics of Information (CCIMI) which is hosted within the Faculty of Mathematics. It accommodates research activity on fundamental mathematical and statistical problems and methodology for understanding, analysing, processing and simulating data.

Deadline for applications is the 7th of December 2016.

More details on the position can be found here: <http://www.jobs.cam.ac.uk/job/11847/>

From: Carola-Bibiane Schönlieb <cbs31@cam.ac.uk>

Subject: University Lectureship in Climate Modelling, Cambridge UK

Date: November 28, 2016

University Lectureship in Climate Modelling:

Applications are invited for the post of University Lecturer in Climate Modelling.

This is joint appointment involving the Department of Chemistry, the Department of Geography, and the Department of Applied Mathematics & Theoretical Physics (DAMTP), University of Cambridge, UK.

Deadline: 30 November 2016

More information: <http://www.jobs.cam.ac.uk/job/11775/>

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

Subject: Contents, Inverse Problems in Science and Engineering

Date: November 2, 2016

Inverse Problems in Science and Engineering January 2017 Volume 25, Issue 1
Table of Contents

Foreword

George S. Dulikravich

Identifying Lamé parameters from time-dependent elastic wave measurements

Armin Lechleiter & John W. Schlasche

Efficient technique for constitutive analysis of reinforced concrete flexural members

Viktor Gribniak, Gintaris Kaklauskas, Algirdas Juozapaitis, Romualdas Kliukas & Adas

Meskenas

Analytical study for the estimation of thermal properties of processed meat based on hyperbolic heat conduction model

Han-Taw Chen, Kuo-Chi Liu, Xiao-Jie Xu & Tsu-Hsiang Lin

Application of early arrival waveform inversion with pseudo-deconvolution misfit function by source convolution

Han Yu, Dongliang Zhang & Yunsong Huang

Inverse estimation of thermal properties using Bayesian inference and three different sampling techniques

S. Somasundharam & K. S. Reddy

A self-regularized approach for rank-deficient systems in the BEM of 2D Laplace problems

Jeng-Tzong Chen, Ying-Te Lee, Yu-Lung Chang & Jie Jian

A posteriori error estimates for numerical solutions to inverse problems of elastography

A. S. Leonov, A. N. Sharov & A. G. Yagola

An inverse solution for reconstruction of the heat transfer coefficient from the knowledge of two temperature values in a solid substrate

S. Moaveni & J. Kim

Available online: <http://www.tandfonline.com/toc/gipe20/25/1>

Inverse Problems in Science and Engineering February 2017 Volume 25, Issue 2
Table of Contents

Numerical solution of two backward parabolic problems using method of fundamental solutions

A. Shidfar & Z. Darooghehgimofrad

Crack identification of beam structures using homotopy continuation algorithm

L. Hu, L. Huang & Z. R. Lu

Online dynamic cardiac imaging based on the elastic-net model

Mingjian Hong, Haibiao Zhang, Mengran Lin, Feng Liu & Yongxin Ge

Regularizing inversion of susceptibility with projection onto convex set using full tensor magnetic gradient data

Shuangxi Ji, Yanfei Wang & Anqi Zou

Improved artificial bee colony algorithm for crack identification in beam using

natural frequencies only

Zhenghao Ding, Zhongrong Lu, Min Huang & Jike Liu

Model-based identification of damage from sparse sensor measurements using Neumann series expansion

Ali Zare Hosseinzadeh, Gholamreza Ghodrati Amiri & Seyed Ali Seyed Razzaghi

Proper Generalized Decomposition model reduction in the Bayesian framework for solving inverse heat transfer problems

Julien Berger, Helcio R. B. Orlande & Nathan Mendes

Identification of separable sources for advection-diffusion equations with variable diffusion coefficient from boundary measured data

M. Kulbay, B. Mukanova & C. Sebu

Available online: <http://www.tandfonline.com/toc/gipe20/25/2>

Submitted by: Dr. Rosalind Davies

Editorial Assistant: Mathematics | Statistics | History of Science | Science, Technology & Society

Taylor & Francis / Routledge Journals

4 Park Square, Milton Park, Abingdon, Oxon, OX14 4RN, UK.

Tel: 020 755 19484

e-mail: rosalind.davies@tandf.co.uk | Twitter: @RDSscience

From: Susan Cummins <journal@aimsciences.org>

Subject: Contents, Inverse Problems and Imaging (IPI)

Date: November 4, 2016

Inverse Problems and Imaging November 2016 Volume 10, Number 4
Table of Contents

On the optimal control of the free boundary problems for the second order parabolic equations. II. Convergence of the method of finite differences

Ugur G. Abdulla

The localized basis functions for scalar and vector 3D tomography and their ray transforms

Alexander Balandin

Imaging with electromagnetic waves in terminating waveguides

Liliana Borcea and Dinh-Liem Nguyen

FEM-based discretization-invariant MCMC methods for PDE-constrained Bayesian inverse problems

Tan Bui-Thanh and Quoc P. Nguyen

Team organization may help swarms of flies to become invisible in closed waveguides
Lucas Chesnel and Sergei A. Nazarov

The Bayesian formulation of EIT: Analysis and algorithms
Matthew M. Dunlop and Andrew M. Stuart

A coupled total variation model with curvature driven for image colorization
Zhengmeng Jin, Chen Zhou and Michael K. Ng

A globally convergent numerical method for a 1-d inverse medium problem with
experimental data
Michael V. Klibanov, Loc H. Nguyen, Anders Sullivan and Lam Nguyen

Model-based reconstruction for magnetic particle imaging in 2D and 3D
Thomas März and Andreas Weinmann

Location of eigenvalues for the wave equation with dissipative boundary conditions
Vesselin Petkov

On the stable recovery of a metric from the hyperbolic DN map with incomplete data
Plamen Stefanov, Gunther Uhlmann and Andras Vasy

A minimal surface criterion for graph partitioning
Dominique Zosso and Braxton Osting

Available online: <http://aims sciences.org/journals/contentsListnew.jsp?pubID=897>

Submitted by: Susan Cummins Publication Editor American Institute of Mathematical
Sciences Springfield, MO 65801 USA journal@aims sciences.org Phone: 417-351-3204

From: <noreply@degruyter.com>
Subject: Contents, Journal of Inverse and Ill-posed Problems
Date: November 22, 2016

Journal of Inverse and Ill-posed Problems December 2016 Volume 24, Issue 6
Table of Contents

Inverse problem about two-spectra for finite Jacobi matrices with zero diagonal
Huseynov, Adil

Shape and parameter reconstruction for the Robin transmission inverse problem
Laurain, Antoine / Meftahi, Houcine

Inverse source problem based on two dimensionless dispersion-current functions in 2D
evolution transport equations
Hamdi, Adel / Mahfoudhi, Imed

On the null space of a class of Fredholm integral equations of the first kind
Michel, Volker / Orzlowski, Sarah

Numerical solution of an elliptic 3-dimensional Cauchy problem by the alternating
method and boundary integral equations
Borachok, Ihor / Chapko, Roman / Johansson, B. Tomas

Reconstruction of local volatility for the binary option model
Ota, Yasushi / Kaji, Shunsuke

Determination of finite difference coefficients for the acoustic wave equation using
regularized least-squares inversion
Wang, Yanfei / Liang, Wenquan / Nashed, Zuhair / Yang, Changchun

Numerical solution of an ill-posed Cauchy problem for a quasilinear parabolic equation
using a Carleman weight function
Klibanov, Michael V. / Koshev, Nikolaj A. / Li, Jingzhi / Yagola, Anatoly G.

On a criterion for the solvability of one ill-posed problem for the biharmonic
equation
Kal'menov, Tynysbek S. / Sadybekov, Makhmud A. / Iskakova, Ulzada A.

Available online:

<https://www.degruyter.com/view/j/jiip.2016.24.issue-6/issue-files/jiip.2016.24.issue-6.xml>

Walter De Gruyter GmbH Genthiner Straße 13 D-10785 Berlin T +49 30 260 05-0 F +49 30
260 05-251 degruyter.com Customer Service service@degruyter.com
----- end -----