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

Today's Topics:

Workshop: 15th Optimization and Inverse Problems in Electromagnetism (OIPE)

Symposium: 31st Inverse Problems Symposium (IPS)

Special Session: Modelling and Decision Making Under Uncertainty, at iEMSs 2018

Table of Contents: Inverse Problems

Table of Contents: Nonlinear Analysis: Modelling and Control

Table of Contents: Electronic Transactions on Numerical Analysis

Submissions for IPNet Digest:

Mail to [ipnet-digest@math.msu.edu](mailto:ipnet-digest@math.msu.edu)

Information about IPNet:

<http://ipnet.math.msu.edu>

-----  
From: OIPE 2018 <[notifications@exordo.com](mailto:notifications@exordo.com)>

Subject: OIPE 2018 - Call for Papers

Date: December 6, 2017

OIPE 2018 - 15th International Workshop on Optimization and Inverse Problems in Electromagnetism

<http://www.oipe2018.at>

Dear colleagues,

it is with great pleasure that we announce that the 15th Workshop on Optimization and Inverse Problems in Electromagnetism, OIPE 2018, will be held on September 11 - 13, 2018, in Hall in Tirol, Austria.

We invite members of the scientific community in universities, research centers and industry to attend the workshop and present their recent achievements.

Please find the Call for Papers:

[https://oipe2018.exordo.com/files/messages/23/OIPE2018\\_Call\\_of\\_Papers.pdf](https://oipe2018.exordo.com/files/messages/23/OIPE2018_Call_of_Papers.pdf)

More information about the workshop and the preceding doctoral course can be found on the website [www.oipe2018.at](http://www.oipe2018.at)

We are looking forward to meeting you all in Hall in Tirol at the OIPE 2018.

Prof. Dr. Daniel Baumgarten

Chairman OIPE 2018

-----  
From: "Dolan, Kirk" <[dolank@anr.msu.edu](mailto:dolank@anr.msu.edu)>

Subject: 2018 IPS June 3-5, MSU

Date: December 31, 2017

2018 Inverse Problems Symposium June 3-5. Michigan State University

<https://inverseproblems2018.org/>

Abstract Submission is open!

We also welcome session organizers.

This is the 31st in the series of National and International meetings on Inverse Problems that were initiated at Michigan State University in 1988. Papers are solicited from all areas involving inverse methods and their applications. The symposium is organized in a single-session format to foster cross-disciplinary interaction. Solicited topics include:

- A. Mathematical and Statistical Aspects of Inverse Problems
  - 1. Theory and Methods of Inverse Problems
  - 2. Stability and Error Analysis
- B. Design of Experiments
  - 1. Optimal Design of Experiments
  - 2. Analysis of Actual Experimental Data
- C. Applications
  - 1. Heat Transfer, Applied Mechanics, Controls, Other Engineering Disciplines
  - 2. Biology, Biochemistry, Genetics, and Medicine
  - 3. Nondestructive Evaluation
  - 4. Nanoengineering
  - 5. Tomography and Inverse Scattering
  - 6. Geology and Environmental Phenomena
  - 7. Economics
  - 8. Food and Bioprocessing
  - 9. Bioengineering
  - 10. Packaging

Contact Information:

Honorary Chairman: Dr. James V. Beck, Professor Emeritus, Michigan State University, [beck@msu.edu](mailto:beck@msu.edu).

Conference Chairman: Kirk Dolan, Professor  
Department of Food Science & Human Nutrition  
Department of Biosystems & Agricultural Engineering  
Michigan State University East Lansing, MI 48224  
Phone: (517) 353-3333  
[dolank@msu.edu](mailto:dolank@msu.edu)

-----  
From: igwmc <[igwmc@mines.edu](mailto:igwmc@mines.edu)>  
Subject: iEMSs 2018 - Modelling and Decision Making Under Uncertainty  
Date: January 30, 2018

Next summer (June 24-28 2018), the 9th International Congress on Environmental Modelling and Software will take place in Ft. Collins, Colorado, USA! (<http://iemss2018. engr.colostate.edu/>)

We (Mary Hill , Holger Maier, Saman Razavi and Jiri Nossent) are organizing a broad session on "Modelling and Decision Making Under Uncertainty" (detailed description at the end of this e-mail) and invite you to consider a contribution to our session.

The abstract submission deadline is 1st February 2018 and the direct link for submitting abstracts is <http://iemss2018. engr.colostate.edu/call-for-abstracts/>

Looking forward to meeting you in Ft. Collins for this great event!



F O Goncharov

Identification of heat transfer coefficient through linearization:  
explicit solution and approximation

F S V Bazán, and L Bedin

Solving ill-posed inverse problems using iterative deep neural networks  
Jonas Adler, and Ozan Öktem

A variational reconstruction method for undersampled dynamic x-ray  
tomography based on physical motion models

Martin Burger, Hendrik Dirks, Lena Frerking, Andreas Hauptmann, Tapio  
Helin, and Samuli Siltanen

Parameter identification in ODE models with oscillatory dynamics: a  
Fourier regularization approach

Maria Chiara D'Autilia, Ivonne Sgura, and Benedetto Bozzini

Papers

Convergence analysis of surrogate-based methods for Bayesian inverse  
problems

Liang Yan, and Yuan-Xiang Zhang

Modified transmission eigenvalues in inverse scattering theory

S Cogar, D Colton, S Meng, and P Monk

Well-posedness of the Goursat problem and stability for point source  
inverse backscattering

Eemeli Blåsten

Boundary determination of the Lamé moduli for the isotropic elasticity  
system

Yi-Hsuan Lin, and Gen Nakamura

Fast myopic 2D-SIM super resolution microscopy with joint modulation  
pattern estimation

François Orioux, Vincent Loriette, Jean-Christophe Olivo-Marin, Eduardo  
Sepulveda, and Alexandra Fragola

Determining anisotropic conductivity using diffusion tensor imaging data  
in magneto-acoustic tomography with magnetic induction

Habib Ammari, Lingyun Qiu, Fadil Santosa, and Wenlong Zhang

Monotonicity based imaging method for time-domain eddy current problems

Z Su, S Ventre, L Udpa, and A Tamburrino

A TVSCAD approach for image deblurring with impulsive noise

Guoyong Gu, Suhong Jiang, and Junfeng Yang

Inversion of geophysical potential field data using the finite element  
method

Bishnu P Lamichhane, and Lutz Gross

A physiology-based parametric imaging method for FDG-PET data

Mara Scussolini, Sara Garbarino, Gianmario Sambuceti, Giacomo Caviglia,  
and Michele Piana

New sets of eigenvalues in inverse scattering for inhomogeneous media and  
their determination from scattering data





Efficient generalized Golub-Kahan based methods for dynamic inverse problems  
Julianne Chung, Arvind K Saibaba, Matthew Brown, and Erik Westman

Efficient regularization with wavelet sparsity constraints in photoacoustic tomography  
Jürgen Friel, and Markus Haltmeier

#### Papers

Size estimates for fat inclusions in an isotropic Reissner-Mindlin plate  
Antonino Morassi, Edi Rosset, and Sergio Vessella

A direct method for nonlinear ill-posed problems  
A Lakhali

Coded aperture ptychography: uniqueness and reconstruction  
Pengwen Chen, and Albert Fannjiang

Stability of stationary inverse transport equation in diffusion scaling  
Ke Chen, Qin Li, and Li Wang

Variational Gaussian approximation for Poisson data  
Simon R Arridge, Kazufumi Ito, Bangti Jin, and Chen Zhang

An inverse problem for Maxwell's equations with Lipschitz parameters  
Monika Pichler

Reconstruction of an order of derivative and a source term in a fractional diffusion equation from final measurements  
Jaan Janno, and Nataliia Kinash

Iterative updating of model error for Bayesian inversion  
Daniela Calvetti, Matthew Dunlop, Erkki Somersalo, and Andrew Stuart

<http://iopscience.iop.org/issue/0266-5611/34/2>

-----  
From: Romas Baronas <romas.baronas@mif.vu.lt>  
Subject: Table of Contents, Nonlinear Analysis: Modelling and Control 23:1  
Date: January 8, 2018

Nonlinear Analysis: Modelling and Control      2018      Volume 23, Number 1  
Table of Contents

Controllability of nonlinear fractional delay dynamical systems with prescribed controls  
Xiao-Li Ding, Juan J. Nieto

Prediction of composite indicators using locally weighted quantile regression  
Jurga Rukšenaite, Pranas Vaitkus, Povilas Asijavicius

New uniqueness results for boundary value problem of fractional differential equation  
Yujun Cui, Wenjie Ma, Qiao Sun, Xinwei Su

Impulsive control of nonlinear systems with impulse time window and bounded gain error

Limin Zou, Yang Peng, Yuming Feng, Zhengwen Tu

Numerical schemes for general Klein-Gordon equations with Dirichlet and nonlocal boundary conditions  
Jesus Martin-Vaquero, Ascension Hernandez Encinas, Araceli Queiruga-Dios, Victor Gayoso-Martinez, Angel Martin del Rey

Impulsive mean square exponential synchronization of stochastic dynamical networks with hybrid time-varying delays  
Fei Wang, Yongqing Yang

Improved synchronization analysis of competitive neural networks with time-varying delays  
Adnene Arbi, Jinde Cao, Ahmed Alsaedi

Impulsive coupled systems with generalized jump conditions  
Feliz Manuel Minhós, Robert de Sousa

Maximum likelihood estimation for Gaussian process with nonlinear drift  
Yuliya Mishura, Kostiantyn Ralchenko, Sergiy Shklyar

<http://www.mii.lt/NA/>

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From: Lothar Reichel <reichel@math.kent.edu>  
Subject: ToC, ETNA, vol. 47  
Date: January 10, 2018

Electronic Transactions on Numerical Analysis (ETNA) 2017 Volume 47  
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Special Volume of the NL2A 2016 conference

Identifying the magnetic permeability in multi-frequency EM data inversion  
G. P. Deidda, P. Díaz de Alba, and G. Rodriguez

A block Arnoldi based method for the solution of the Sylvester-observer equation  
L. Elbouyahyaoui, M. Heyouni, K. Jbilou, and A. Messaoudi

Any admissible harmonic Ritz value set is possible for GMRES  
K. Du, J. Duintjer Tebbens, and G. Meurant  
a

Incremental computation of block triangular matrix exponentials with application to option pricing  
D. Kressner, R. Luce, and F. Statti

On generalized iterated Tikhonov regularization with operator-dependent seminorms  
D. Bianchi and M. Donatelli

Block Krylov subspace methods for functions of matrices  
A. Frommer, K. Lund, and D. B. Szyld

An optimal Q-OR Krylov subspace method for solving linear systems  
G. Meurant

Weighted Golub-Kahan-Lanczos bidiagonalization algorithms  
H.-X. Zhong and H. Xu

Vector estimates for  $f(A)b$  via extrapolation  
M. Mitrouli and P. Roupa

Enhanced matrix function approximation  
N. Eshghi and L. Reichel

Varying the  $s$  in your  $s$ -step GMRES  
D. Imberti and J. Erhel

<http://etna.mcs.kent.edu/volumes/2011-2020/vol47/>  
----- end -----



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

Today's Topics:

Workshop: Uncertainty Quantification and Computational Imaging at ICMS

Conference: 6th Int'l Conference on Engineering Optimization in Lisbon

Table of Contents: Journal of Inverse and Ill-posed Problems

Table of Contents: Inverse Problems

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-----  
From: "Pereyra, Marcelo" <[m.pereyra@hw.ac.uk](mailto:m.pereyra@hw.ac.uk)>  
Subject: Workshop on Uncertainty Quantification and Computational Imaging - April 23 & 24 - ICMS, Edinburgh UK  
Date: February 20, 2018

Dear colleagues,

This is an announcement for a workshop on Uncertainty Quantification and Computational Imaging that will take place at the ICMS, Edinburgh, on April 23 and 24, 2018 (for details see <http://www.icms.org.uk/uncertaintyquantification.php> )

The workshop will bring together experts in MCMC and in computational imaging to discuss ideas related to performing uncertainty quantification in imaging problems. There will be two mini-courses, research talks by world-leading experts, and a poster session.

Registration link:

<https://www.smartsurvey.co.uk/s/4006853CWUT/>

Best wishes,  
Marcelo Pereyra

Submitted by:?

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Email: [m.pereyra@hw.ac.uk](mailto:m.pereyra@hw.ac.uk) | Telephone: +44 (0) 131 451 3211 | Web site: <http://www.macs.hw.ac.uk/~mp71/>

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From: ENGOPT2018 <[engopt2018@engopt2018.com](mailto:engopt2018@engopt2018.com)>  
Subject: EngOpt2018 - Call-for-Papers  
Date: January 31, 2018 at 5:25:27 PM PST  
To: <[ipowner@math.msu.edu](mailto:ipowner@math.msu.edu)>  
Reply-To: ENGOPT2018 <[engopt2018@engopt2018.com](mailto:engopt2018@engopt2018.com)>, ENGOPT2018 <[mail@engopt2018.tecnico.ulisboa.pt](mailto:mail@engopt2018.tecnico.ulisboa.pt)>

Call-for-Papers

EngOpt 2018 - 6th International Conference on Engineering Optimization  
17 - 19 September 2018, Lisbon, Portugal

Dear Colleague:

It is our pleasure to invite you, your co-workers and students to present your research work on engineering optimization at the EngOpt 2018 Conference.

The main goal of EngOpt conferences is to periodically bring together engineers, applied mathematicians and computer scientists working on research, development and practical application of optimization methods in all engineering disciplines and applied sciences.

Note that the deadline for abstract submission is March 16, 2018, and that all abstracts must be submitted online.

For up-to-date information visit the the Conference web page:  
<http://engopt2018.tecnico.ulisboa.pt>

We look forward to welcome you in Lisboa at EngOpt 2018.

Yours Truly

Helder C. Rodrigues  
Jose Herskovits  
Cristovao Mota Soares

EngOpt2018 Chairmen

EngOpt2018 Secretariat:

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Instituto Superior Técnico  
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Ph: +351 218417280  
Fax: +351 218417915  
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Web: <http://engopt2018.tecnico.ulisboa.pt>

-----  
From: <[noreply@degruyter.com](mailto:noreply@degruyter.com)>  
Subject: Contents, 'Journal of Inverse and Ill-posed Problems'  
Date: February 1, 2018

Journal of Inverse and Ill-posed Problems    February 2018    Volume 26,  
Issue 1

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Partial inverse problems for the Sturm-Liouville operator on a star-shaped graph with mixed boundary conditions  
Bondarenko, Natalia Pavlovna

A two-dimensional backward heat problem with statistical discrete data  
Minh, Nguyen Dang / To Duc, Khanh / Tuan, Nguyen Huy / Trong, Dang Duc

A modified coupled complex boundary method for an inverse chromatography problem  
Cheng, Xiaoliang / Lin, Guangliang / Zhang, Ye / Gong, Rongfang / Gulliksson, Mårten



Wavefront reconstruction from non-modulated pyramid wavefront sensor data using a singular value type expansion  
Victoria Hutterer, and Ronny Ramlau

Convex blind image deconvolution with inverse filtering  
Xiao-Guang Lv, Fang Li, and Tiejong Zeng

Solving ill-posed control problems by stabilized finite element methods: an alternative to Tikhonov regularization  
Erik Burman, Peter Hansbo, and Mats G Larson

On the identification of multiple space dependent ionic parameters in cardiac electrophysiology modelling  
Yassine Abidi, Mourad Bellassoued, Moncef Mahjoub, and Nejib Zenzemi

Reconstruction of local perturbations in periodic surfaces  
Armin Lechleiter, and Ruming Zhang

The method of fundamental solutions for computing acoustic interior transmission eigenvalues  
Andreas Kleefeld, and Lukas Pieronek

Direct sampling methods for inverse elastic scattering problems  
Xia Ji, Xiaodong Liu, and Yingxia Xi

Topological optimality condition for the identification of the center of an inhomogeneity  
Fioralba Cakoni, and Victor A Kovtunencko

Sampling-free Bayesian inversion with adaptive hierarchical tensor representations  
Martin Eigel, Manuel Marschall, and Reinhold Schneider

<http://iopscience.iop.org/issue/0266-5611/34/3>  
----- end -----

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

Today's Topics:

Workshop on Numerical Analysis and Regularization for Inverse Problems at UCL  
Inverse Problems Symposium 2018 at MSU  
Table of Contents: Inverse Problems in Science and Engineering  
Table of Contents: Inverse Problems  
Table of Contents: Journal of Inverse and Ill-posed Problems

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Information about IPNet:

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From: "Betcke, Marta" <[m.betcke@ucl.ac.uk](mailto:m.betcke@ucl.ac.uk)>  
Subject: Workshop on numerical analysis and regularization for inverse problems, 26-27 April 2018, UCL  
Date: March 15, 2018

We would like to bring to your attention the workshop on numerical analysis and regularization for inverse problems, 26-27 April 2018. The workshop is a part of both the series of EPSRC Inverse Problems Network Meetings and LMS Workshops on Inverse Problems, and it is hosted by the Centre of Inverse Problems at UCL.

Speakers:

Erik Burman, UCL, United Kingdom  
Maarten de Hoop, Rice University, United States  
Romina Gaburro, University of Limerick, Republic of Ireland  
Ivan Graham, University of Bath, United Kingdom  
Nuutti Hyvönen, Aalto University, Finland  
Paul Ledger, Swansea University, United Kingdom  
Peter Maass, University of Bremen, Germany  
Virginia Selgas, Universidad de Oviedo, Spain

Registration is open via the website until the 19th of April. If you wish to present a poster please email the title and abstract to [m.betcke\[at\]ucl.ac.uk](mailto:m.betcke[at]ucl.ac.uk) by 19th of April. Registration is free to the network members and otherwise there is a fee of £40 exclusive / £70 inclusive conference dinner.

Limited number of travel bursaries are available for UK-based PhD students presenting a poster.

For further details please refer to the workshop's website <http://www.cs.cf.ac.uk/invprob3/>

Organisers:

Marta Betcke  
Natalia Bochkina  
Malcolm Brown  
Sean Holman  
Lauri Oksanen

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: "Dolan, Kirk" <dolank@anr.msu.edu>  
Subject: IPS 2018 IPNet  
Date: March 26, 2018 at 7:10:24 AM PDT

2018 Inverse Problems Symposium June 3-5. Michigan State University

Abstract Submission and Registration are open!

<https://inverseproblems2018.org/>

We also welcome session organizers. Please contact Kirk Dolan if you wish to organize a session.

This is the 31st in the series of National and International meetings on Inverse Problems that were initiated at Michigan State University in 1988. Papers are solicited from all areas involving inverse methods and their applications. The symposium is organized in a single-session format to foster cross-disciplinary interaction. Solicited topics include:

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  - 1. Theory and Methods of Inverse Problems
  - 2. Stability and Error Analysis
- B. Design of Experiments
  - 1. Optimal Design of Experiments
  - 2. Analysis of Actual Experimental Data
- C. Applications
  - 1. Heat Transfer, Applied Mechanics, Controls, Other Engineering Disciplines
  - 2. Biology, Biochemistry, Genetics, and Medicine
  - 3. Nondestructive Evaluation
  - 4. Nanoengineering
  - 5. Tomography and Inverse Scattering
  - 6. Geology and Environmental Phenomena
  - 7. Economics
  - 8. Food and Bioprocessing
  - 9. Bioengineering
  - 10. Packaging

Contact Information:

Honorary Chairman: Dr. James V. Beck, Professor Emeritus, Michigan State University, [beck@msu.edu](mailto:beck@msu.edu).

Conference Chairman: Kirk Dolan, Professor  
Department of Food Science & Human Nutrition  
Department of Biosystems & Agricultural Engineering  
Michigan State University East Lansing, MI 48224  
Phone: (517) 353-3333  
[dolank@msu.edu](mailto:dolank@msu.edu)

-----  
From: "Robinson, Justin" <Justin.Robinson@tandf.co.uk>  
Subject: Inverse Problems in Science and Engineering, Volume 26, Issue 4, April 2018 is now available online on Taylor & Francis Online  
Date: February 27, 2018

Foreword  
George S. Dulikravich

Articles:

Identification of diffusion parameters in a non-linear convection-  
diffusion equation using adaptive homotopy perturbation method  
Tao Liu & Songshu Liu

Parameter estimation with model order reduction for elliptic differential  
equations  
Axel Ariaan Lukassen & Martin Kiehl

A new methodology for Bayesian history matching using parallel  
interacting Markov chain Monte Carlo  
Célio Maschio & Denis J. Schiozer

Robust inversion method for jointly estimating parameters and variance  
components from heterogeneous monitoring data  
F. Touati & N. Benaraba

Quality assurance of Gaver's formula for multi-precision Laplace  
transform inversion in real case  
Luisa D'Amore, Valeria Mele & Rosanna Campagna

Application of inverse method to predict the breakthrough curve in fixed-  
bed adsorption  
H. Rahideh, M. Mofarahi & P. Malekzadeh

Characterization of elastic parameters for functionally graded material  
by a meshfree method combined with the NMS approach  
Bin Chen, Wen Chen & Xing Wei

Announcement:  
The Ninth International Conference 'Inverse Problems: Modelling &  
Simulation'

<https://tandfonline.com/toc/gipe20/26/4?nav=toClist&>

Submitted by: Justin Robinson  
Managing Editor | Taylor & Francis | Routledge Journals  
Mathematics | Statistics | History of Science | Science, Technology &  
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Tel: +44 (0)20 755 19470 e-mail: [justin.robinson@tandf.co.uk](mailto:justin.robinson@tandf.co.uk)

-----  
From: <[noreply@iopscience.org](mailto:noreply@iopscience.org)>  
Subject: Inverse Problems, Volume 34, Number 4, April 2018  
Date: March 16, 2018

Inverse Problems April 2018 Volume 34, Number 4  
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Preface:  
Dynamic inverse problems: modelling-regularization-numeric  
Thomas Schuster, Bernadette Hahn, and Martin Burger

Special Issue Papers:

Computation of forces from deformed visco-elastic biological tissues  
José J Muñoz, David Amat, and Vito Conte

Atmospheric turbulence profiling with unknown power spectral density  
Tapio Helin, Stefan Kindermann, Jonatan Lehtonen, and Ronny Ramlau

Blind image fusion for hyperspectral imaging with the directional total variation  
Leon Bungert, David A Coomes, Matthias J Ehrhardt, Jennifer Rasch, Rafael Reisenhofer, and Carola-Bibiane Schönlieb

Tensor tomography on Cartan-Hadamard manifolds  
Jere Lehtonen, Jesse Railo, and Mikko Salo

Papers:

Theoretical stability in coefficient inverse problems for general hyperbolic equations with numerical reconstruction  
Jie Yu, Yikan Liu, and Masahiro Yamamoto

Sparsity-promoting and edge-preserving maximum a posteriori estimators in non-parametric Bayesian inverse problems  
Sergios Agapiou, Martin Burger, Masoumeh Dashti, and Tapio Helin

Exponential instability in the fractional Calderón problem  
Angkana Rüland, and Mikko Salo

A time reversal algorithm in acoustic media with Dirac measure approximations  
Élie Bretin, Carine Lucas, and Yannick Privat

Monotonicity-based electrical impedance tomography for lung imaging  
Liangdong Zhou, Bastian Harrach, and Jin Keun Seo

Total variation regularization for seismic waveform inversion using an adaptive primal dual hybrid gradient method  
Peng Yong, Wenyuan Liao, Jianping Huang, and Zhenchuan Li

Recovery of singularities from a backscattering Born approximation for a biharmonic operator in 3D  
Teemu Tyni

Inverse scale space decomposition  
Marie Foged Schmidt, Martin Benning, and Carola-Bibiane Schönlieb

Inverse source problems in elastodynamics  
Gang Bao, Guanghui Hu, Yavar Kian, and Tao Yin

<http://iopscience.iop.org/issue/0266-5611/34/4>

-----  
From: <noreply@degruyter.com>  
Subject: Contents, 'Journal of Inverse and Ill-posed Problems'  
Date: March 23, 2018

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A parameter choice strategy for a multilevel augmentation method in iterated Lavrentiev regularization

Zeng, Chunmei / Luo, Xingjun / Yang, Suhua / Li, Fanchun

Sparse signal recovery with prior information by iterative reweighted least squares algorithm

Feng, Nianci / Wang, Jianjun / Wang, Wendong

Towards dynamic PET reconstruction under flow conditions: Parameter identification in a PDE model

Reips, Louise / Burger, Martin / Engbers, Ralf

Simultaneous determination of the magnetic field and the electric potential in the Schrödinger equation by a finite number of boundary observations

Ben Aïcha, Ibtissem / Mejri, Youssef

Frechet differentiability in Besov spaces in the optimal control of parabolic free boundary problems

Abdulla, Ugur G. / Goldfarb, Jonathan M.

Data-driven multichannel seismic impedance inversion with anisotropic total variation regularization

Wang, Dehua / Gao, Jinghuai / Zhou, Hongan

Full waveform inversion with sparse structure constrained regularization

Yan, Zichao / Wang, Yanfei

Marching schemes for Cauchy wave propagation problems in laterally varying waveguides

Li, Peng / Liu, Keying / Zhong, Weizhou

Existence of variational source conditions for nonlinear inverse problems in Banach spaces

Flemming, Jens

On ill-posedness concepts, stable solvability and saturation

Hofmann, Bernd / Plato, Robert

A linear algorithm for the identification of a weakly singular relaxation kernel using two boundary measurements

Avdonin, Sergei / Pandolfi, Luciano

<https://www.degruyter.com/view/j/jiip.2018.26.issue-2/issue-files/jiip.2018.26.issue-2.xml>

----- end -----



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

Today's Topics:

Chemnitz Symposium on Inverse Problems 2018  
New Deadline: Workshop on Optimization and Inverse Problems in  
Electromagnetism  
IMA Conf. on the Mathematical Challenges of Big Data, incl. Inverse  
Problems  
Research and PhD positions in Bayesian Inference at University of  
Sussex  
Table of Contents: Inverse Problems

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-----  
From: Chemnitz Symposium on Inverse Problems 2018 <[csip2018@tu-chemnitz.de](mailto:csip2018@tu-chemnitz.de)>  
Subject: Registration open for Chemnitz Sympisum on Inverse Problems  
Date: April 23, 2018

Dear Colleagues,

we would like to announce that the online registration for

Chemnitz Symposium on Inverse Problems, September 27 and 28, 2018

is now open: <https://www.chemnitz-am.de/ipsym2018/registration.php>

The symposium will be one of three events of the Chemnitz September of Applied Mathematics.

You are cordially invited to participate at the symposium.

If there are questions, please do not hesitate to contact us. It would be fine if you could give this information to your collaborators and coauthors.

Welcome to Chemnitz!

Yours sincerely,

Jens Flemming  
on behalf of the organizing committee

TU Chemnitz  
Faculty of Mathematics  
D-09107 Chemnitz, Germany

-----  
From: Daniel Baumgarten <[notifications@exordo.com](mailto:notifications@exordo.com)>  
Subject: OIPE 2018 - Submission Deadline Extended  
Date: April 27, 2018

2018, 11th to 13th September 2018

OIPE 2018 - 15th International Workshop on Optimization and Inverse Problems in Electromagnetism  
<http://www.oipe2018.at>

Dear colleagues,  
we are glad to announce an extension of the deadline for abstract submission to OIPE 2018 in response to multiple requests. The new deadline is Monday, May 14th.

Submit today at <http://www.oipe2018.at/index.php/paper-information/digest-submission>

We encourage you to participate in OIPE 2018, which will be held on September 11th-13th, 2018, in Hall in Tirol / Innsbruck, Austria. The topics of the workshop will range from theoretical aspects and fundamentals over algorithms and applications to software methodologies. The confirmed speakers include

- Richard Baraniuk (Rice University, USA)
- Stéphane Clénét (Arts et Métiers ParisTech, France)
- Josep M. Guerrero (Aalborg University, Denmark)
- David A. Lowther (Mc Gill University, Canada)
- Christophe Geuzaine, Erin Kuci (University of Liège, Belgium)
- Sebastian Schöps (Technische Universität Darmstadt).

Furthermore, we proudly announce that the IET SMT award for best paper presented by a young researcher will be conferred within OIPE 2018.

Prior to the workshop, a one day doctoral course is organized. International experts will teach PhD students and researchers entering the field in selected aspects of optimization and inverse problems in electromagnetism.

Please find enclosed the Call for Papers. Further information about the workshop and the preceding doctoral course can be found on the website [www.oipe2018.at](http://www.oipe2018.at)

We are looking forward to meeting you all in Hall in Tirol at the OIPE 2018.

Prof. Dr. Daniel Baumgarten  
Chairman OIPE 2018

Download the Oipe2018 3rd call for papers final.pdf  
at  
[https://oipe2018.exordo.com/files/messages/77/OIPE2018\\_3rd\\_Call\\_for\\_Papers\\_FINAL.pdf](https://oipe2018.exordo.com/files/messages/77/OIPE2018_3rd_Call_for_Papers_FINAL.pdf)

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From: Pam Bye <Pam.Bye@ima.org.uk>  
Subject: 3rd IMA Conference on the Mathematical Challenges of Big Data  
Date: April 11, 2018

3RD IMA CONFERENCE ON THE MATHEMATICAL CHALLENGES OF BIG DATA  
Monday 10th - Tuesday 11th December 2018  
Double Tree by Hilton Hotel London - West End

CALL FOR ABSTRACTS

Data-driven analysis is increasingly on the critical path for performance advantage in many organisations, both public and commercial. This raises

continuous challenges for rigorous analysis to derive reliable insights from data at very large scale, often with potential artefacts and sampling bias, adding to change variation. This conference brings together researchers and practitioners to signpost developments in the state-of-the-art and find common ground where theory and practice meet to maximise impact in the digital economy. It is a forum for networking and to showcase the very latest research in a broad range of topics. Each session will feature an invited talk by an expert speaker.

Invited Speakers  
To be confirmed

Topics of interest  
Papers should describe mathematical challenges specific to the following topics and their application in large-scale use cases:

- Mathematical challenges arising from Big Data
- Mathematical Innovation in Data Science
- Multidisciplinary applications of Big Data
- Data assimilation and inverse problems from novel sensors
- Applications of block-chain including cryptocurrencies
- Persistent homology
- Optimal and dynamic sampling
- Stream data management
- Uncertainty modelling & generalisation error bounds
- Network analysis & web mining methods
- Trend tracking & novelty detection
- Dynamic segmentation & clustering
- Deep learning
- Transfer learning
- Context awareness
- Multimodal data linkage
- Integration of multi-scale models
- Mining of unstructured, spatio-temporal & multimedia data
- IoT and large sensor networks
- Predictive analytics and recommender systems
- Real-time forecasting
- Access on-demand in distributed databases
- Privacy protecting data mining
- Homomorphic encryption
- Data integrity & provenance methods
- Visualization methods
- Mathematics underpinning large-scale use cases

Call for Abstracts

Papers will be accepted for the conference based on a 300-500 word abstract for oral or poster presentation. We welcome abstracts to be submitted by Friday 28 September 2018 via <https://my.ima.org.uk> Please indicate whether your title is intended for oral or poster presentation. Note: If you are an IMA Member or you have previously registered for an IMA conference, then you are already on our database. Please "request a new password" using the email address previously used, to log in.

Programme Committee

Paulo Lisboa, Liverpool John Moores University (Chair)  
Patrick Rubin-Delanchy and Dan Lawson, University of Bristol (Co-Chairs)  
Ben Dias, Royal Mail  
Iain Duff, STFC, Rutherford  
Peter Grindrod, University of Oxford  
Richard Pinch, Cheltenham



Papers

Inversion of residual stress profiles from ultrasonic Rayleigh wave dispersion data  
P Mora, and M Spies

Sparsest representations and approximations of an underdetermined linear system  
Patrick J C Tardivel, Rémi Servien, and Didier Concordet

Doppler synthetic aperture radar interferometry: a novel SAR interferometry for height mapping using ultra-narrowband waveforms  
Birsen Yazıcıoğlu, Il-Young Son, and H Cagri Yanik

Frozen Gaussian approximation for 3D seismic tomography  
Lihui Chai, Ping Tong, and Xu Yang

On increasing stability in the two dimensional inverse source scattering problem with many frequencies  
Mozhgan Nora Entekhabi, and Victor Isakov

Comparison of the genetic algorithm and incremental optimisation routines for a Bayesian inverse modelling based network design  
A Nickless, P J Rayner, B Erni, and R J Scholes

Inverse problems with nonnegative and sparse solutions: algorithms and application to the phase retrieval problem  
Pham Quy Muoi, Dinh Nho Hào, Sujit Kumar Sahoo, Dongliang Tang, Nguyen Huu Cong, and Cuong Dang

On convergence and convergence rates for Ivanov and Morozov regularization and application to some parameter identification problems in elliptic PDEs  
Barbara Kaltenbacher, and Andrej Klassen

Parameterizations for ensemble Kalman inversion  
Neil K Chada, Marco A Iglesias, Lassi Roininen, and Andrew M Stuart

Backward semi-linear parabolic equations with time-dependent coefficients and local Lipschitz source  
Dinh Nho Hào, Nguyen Van Duc, and Nguyen Van Thang

A note on convergence of solutions of total variation regularized linear inverse problems  
José A Iglesias, Gwenael Mercier, and Otmar Scherzer

Mathematical analysis of the 1D model and reconstruction schemes for magnetic particle imaging  
W Erb, A Weinmann, M Ahlborg, C Brandt, G Bringout, T M Buzug, J Frikel, C Kaethner, T Knopp, T März, M Möddel, M Storath, and A Weber

Modified truncated randomized singular value decomposition (MTRSVD) algorithms for large scale discrete ill-posed problems with general-form regularization  
Zhongxiao Jia, and Yanfei Yang

<http://iopscience.iop.org/issue/0266-5611/34/5>

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

Today's Topics:

IPNet Server Issues  
11th International Conference on Image and Signal Processing, Beijing, China  
5th European Conference on Computational Optimization  
Research Associate: Mathematical Image Analysis and Machine Learning, Cambridge, UK  
Table of Contents: Inverse Problems  
Table of Contents: Journal of Inverse and Ill-posed Problems

Submissions for IPNet Digest:

Mail to [ipnet-digest@math.msu.edu](mailto:ipnet-digest@math.msu.edu)

Information about IPNet:

<http://ipnet.math.msu.edu>

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Subject: IPNet Server Issues

We have had some problems with the IPNet mail server over the past few weeks during which some email messages sent to the IPNet may have been lost. Our apologies if you were unable to contact us during this time. It is our understanding that the earlier problems have now been resolved.

--pkl

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From: Prof Li <[CISP-BMEI-cfp@ecnu.edu.cn](mailto:CISP-BMEI-cfp@ecnu.edu.cn)>  
Subject: CISP-BMEI 2018 Deadline 10 July, Beijing, China  
Date: May 6, 2018

Dear Colleague,

We cordially invite you to submit a paper to the upcoming 2018 11th International Congress on Image and Signal Processing, BioMedical Engineering and Informatics (CISP-BMEI 2018), to be held in Beijing, China, 13-15 October 2018.

Beijing is the capital of the People's Republic of China, the country's center for politics, culture, international exchanges and technological innovation. It is home to numerous historical sites and cultural landmarks, including the Forbidden City, the Great Wall, the Temple of Heaven, the Summer Palace, the Ming Tombs, all of which have been listed as UNESCO World Heritages. Traditional local art performances and crafts, such as Peking Opera and Cloisonné, are also renowned throughout the world.

As with past CISP-BMEI conferences, all papers in conference proceedings will be submitted to EI Compendex, Scopus, CPCI (ISI/ISTP), and IEEE Xplore. Substantially extended versions of best papers will be considered for publication in a CISP-BMEI special issue of a SCI-indexed journal. CISP-BMEI 2018 is technically co-sponsored by the IEEE Engineering in Medicine and Biology Society (pending). The past conference proceedings

from 2008 to 2015 appeared as 2 separate (but co-located) conferences, i.e., CISP and BMEI. CISP-BMEI has become a single conference since 2016.

CISP-BMEI 2018 is a premier international forum for scientists and researchers to present the state of the art of multimedia, signal processing, biomedical engineering and informatics. The registration fee of US\*D480 includes proceedings, lunches, dinners, banquet, coffee breaks, and all technical sessions.

To promote international participation of researchers from outside the country/region where the conference is held (i.e., China's mainland), researchers outside of China's mainland are encouraged to propose invited sessions. The first author of each paper in an invited session must not be affiliated with an organization in China's mainland. All papers in the invited sessions can be marked as "Invited Paper". The organizer(s) for each invited session with at least 6 registered papers will jointly enjoy an honorarium of US\*D 500. Invited session organizers will solicit submissions, conduct reviews and recommend accept/reject decisions on the submitted papers. Invited session organizers will be able to set their own submission and review schedules, as long as a list of recommended papers is determined by 18 August 2018. Each invited session proposal should include: (1) the name, bio, and contact information of each organizer of the invited session; (2) the title and a short synopsis of the invited session. Please send your proposal to [cisp-bmei@mail.buct.edu.cn](mailto:cisp-bmei@mail.buct.edu.cn)

For more information, visit the conference web page:

<http://research.cs.buct.edu.cn:8080/CISP2018>

If you have any questions after visiting the conference web page, please email the secretariat at [cisp-bmei@mail.buct.edu.cn](mailto:cisp-bmei@mail.buct.edu.cn)

Join us at this major event in historical Beijing !!!

Organizing Committee  
[cisp-bmei@mail.buct.edu.cn](mailto:cisp-bmei@mail.buct.edu.cn)

P.S.: Kindly forward to your colleagues and students in your school/department.

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From: Ville Kolehmainen <[ville.kolehmainen@uef.fi](mailto:ville.kolehmainen@uef.fi)>  
Subject: 5th European Conference on Computational Optimization  
Date: Wednesday, June 6, 2018

EUCCO 2018 - deadline for contributions is extended to June 15.

We would like to draw your attention to the 5th European Conference on Computational Optimization - EUCCO 2018, taking place in Trier in from September 10 - 12, 2018.

The scope of this conference series is quite broad as it aims to bring together scientists from a diversity of subdisciplines, such as computational optimization, algorithms and applications. The upcoming conference will place special emphasis on certain aspects of optimization, found in the focus sessions, while still keeping its more traditional focus on large scale optimization, optimization with partial differential equations, and numerical optimization algorithms and software. More information can be found at <https://alop.uni-trier.de/eucco2018/>





3D Compton scattering imaging and contour reconstruction for a class of Radon transforms

Gaël Rigaud, and Bernadette N Hahn

Imaging of isotropic and anisotropic conductivities from power densities in three dimensions

François Monard, and Donsub Rim

Linear sampling method applied to non destructive testing of an elastic waveguide: theory, numerics and experiments

Vahan Baronian, Laurent Bourgeois, Bastien Chapuis, and Arnaud Recoquillay

Inexact Newton regularization combined with gradient methods in Banach spaces

Fábio Margotti

Ensemble-marginalized Kalman filter for linear time-dependent PDEs with noisy boundary conditions: application to heat transfer in building walls

Marco Iglesias, Zaid Sawlan, Marco Scavino, Raúl Tempone, and Christopher Wood

Fluorescence molecular imaging based on the adjoint radiative transport equation

Fatmir Asllanaj, Ahmad Addoum, and Jean Rodolphe Roche

Online learning in optical tomography: a stochastic approach

Ke Chen, Qin Li, and Jian-Guo Liu

Inverse medium scattering from periodic structures with fixed-direction incoming waves

Peter Gibson, Guanghui Hu, and Yue Zhao

On inverse problems for piezoelectric equation: stability analysis and numerical method

Yibin Ding, Yuhui Sun, and Xiang Xu

The refined impedance transform for 1D acoustic reflection data

Peter C Gibson

<http://iopscience.iop.org/issue/0266-5611/34/7>

From: noreply@degruyter.com <noreply@degruyter.com>

Subject: Contents, 'Journal of Inverse and Ill-posed Problems'

Date: Saturday, May 26, 2018

Journal of Inverse and Ill-posed Problems June 2018 Volume 26, Issue 3

Error estimates for the simplified iteratively regularized Gauss-Newton method in Banach spaces under a Morozov-type stopping rule

Mahale, Pallavi / Dixit, Sharad Kumar

An optimization algorithm for determining a point heat source position in a 2D domain using a hybrid metaheuristic

Kurt, Mehmet / Günel, Korhan

Lipschitz continuity of the Fréchet gradient in an inverse coefficient problem for a parabolic equation with Dirichlet measured output  
Hasanov, Alemdar

On finding a cavity in a thermoelastic body using a single displacement measurement over a finite time interval on the surface of the body  
Ikehata, Masaru

On dynamical reconstruction of an input in a linear system under measuring a part of coordinates  
Maksimov, Vyacheslav I.

A straightforward proof of Carleman estimate for second-order elliptic operator and a three-sphere inequality  
Baldassari, Lorenzo / Vessella, Sergio

Information content in data sets: A review of methods for interrogation and model comparison  
Banks, H. Thomas / Joyner, Michele L.

An inverse problem in corrosion detection: Stability estimates  
Choulli, Mourad

<https://www.degruyter.com/view/j/jiip.2018.26.issue-3/issue-files/jiip.2018.26.issue-3.xml>

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

Today's Topics:

15th International Workshop on Optimization & Inverse Problems in Electromagnetism

Chemnitz Symposium on Inverse Problems 2018

Positions Available in Research Group KU Leuven ESAT-STADIUS (E-DUALITY)

Table of Contents: Inverse Problems in Science and Engineering

Table of Contents: Inverse Problems

Submissions for IPNet Digest:

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From: OIPE 2018 <[notifications@exordo.com](mailto:notifications@exordo.com)>

Subject: OIPE 2018: Registration now open

Date: Monday, June 18, 2018

2018, 11th to 13th September

OIPE 2018 - 15th International  
Workshop on Optimization and Inverse  
Problems in Electromagnetism

<http://www.oipe2018.at>

Dear Colleague,

we are happy to inform you that registration for OIPE 2018 is now open. Early bird registration fees will be available until July 9th, 2018. In order to start your registration, log in to your OIPE 2018 Dashboard at <https://oipe2018.exordo.com/login>

All information about the OIPE 2018 workshop including scientific and social program as well as travel and accommodation information is available on [www.oipe2018.at](http://www.oipe2018.at)

We look forward to welcoming you at OIPE 2018 in Hall in Tirol!

Yours Sincerely,

Daniel Baumgarten?Chairman OIPE 2018

Click here to view an online version of this email:

[https://oipe2018.exordo.com/messages/view/155eb61c900b1a3f89fd91f09d4e5b9c\\_11975](https://oipe2018.exordo.com/messages/view/155eb61c900b1a3f89fd91f09d4e5b9c_11975)

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From: Chemnitz Symposium on Inverse Problems 2018 <[csip2018@tu-chemnitz.de](mailto:csip2018@tu-chemnitz.de)>

Subject: Early bird registration Chemnitz Symposium on Inverse Problems

Date: Friday, June 22, 2018

Dear Colleagues,

registration for the Chemnitz Symposium on Inverse Problems 2018 is still open.

Please note that early bird registration with reduced fee ends on June 30. Late registration is possible until end of July.

Online registration and further information is available under

[https://urldefense.proofpoint.com/v2/url?u=https-3A\\_\\_www.chemnitz-2Dam.de\\_ipsym2018\\_registration.php&d=DwIBaQ&c=nE\\_\\_W8dFE-shTxStwXtp0A&r=e3hMoihI-CgaL4e-VWcjOhsJb6Lg8FbptIXTFDPUMuc&m=WW8IrXYetSqQOn-X097x1SdyvscSJCT\\_IZvmRxxvAVbU&s=I-GN1o9IOVfRorybINebTYW4iGS7Z9Jp75LpZ9pIzVc&e=](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.chemnitz-2Dam.de_ipsym2018_registration.php&d=DwIBaQ&c=nE__W8dFE-shTxStwXtp0A&r=e3hMoihI-CgaL4e-VWcjOhsJb6Lg8FbptIXTFDPUMuc&m=WW8IrXYetSqQOn-X097x1SdyvscSJCT_IZvmRxxvAVbU&s=I-GN1o9IOVfRorybINebTYW4iGS7Z9Jp75LpZ9pIzVc&e=)

If there are any questions, please do not hesitate to contact us by email  
csip2018@tu-chemnitz.de

We are looking forward seeing you in Chemnitz!

Yours sincerely

Jens Flemming

on behalf of the organizing committee

--

TU Chemnitz

Faculty of Mathematics

D-09107 Chemnitz, Germany

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From: Johan Suykens <Johan.Suykens@esat.kuleuven.be>

Subject: PhD and Postdoc positions KU Leuven (ERC Advanced grant E-DUALITY)

Date: Tuesday, June 12, 2018

The research group KU Leuven ESAT-STADIUS is currently offering 3 PhD and 3 Postdoc (1 year, extendable) positions within the framework of the ERC (European Research Council) Advanced Grant E-DUALITY

[https://urldefense.proofpoint.com/v2/url?u=http-3A\\_\\_www.esat.kuleuven.be\\_stadius\\_E&d=DwICaQ&c=nE\\_\\_W8dFE-shTxStwXtp0A&r=d\\_ce0\\_mh\\_PXvtyDkkix951B\\_s\\_t7QYc8Dtq82B52K8I&m=WLCD7P\\_qFvtR2U65jxXaAF19QvHSM651jDWzmxdnWSs&s=4QCOE4tsg0f2PJntS1vhbf3tz4lXBorZ\\_XtVkcBp3tI&e=](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.esat.kuleuven.be_stadius_E&d=DwICaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=WLCD7P_qFvtR2U65jxXaAF19QvHSM651jDWzmxdnWSs&s=4QCOE4tsg0f2PJntS1vhbf3tz4lXBorZ_XtVkcBp3tI&e=)

(PI: Johan Suykens) on Exploring  
Duality for Future Data-driven Modelling.

Within this ERC project E-DUALITY we aim at realizing a powerful and unifying framework (including e.g. kernel methods, support vector machines, deep learning, multilayer networks, tensor-based models and others) for handling different system complexity levels, obtaining optimal model representations and designing efficient algorithms.

The research positions relate to the following possible topics:

- 1- Duality principles
- 2- Multiple data sources and coupling schemes
- 3- Manifold learning and semi-supervised schemes
- 4- Optimal prediction schemes
- 5- Scalability, on-line updating, interpretation and visualization
- 6- Mathematical foundations
- 7- Matching model to system characteristics

For further information and on-line applying, see

[https://urldefense.proofpoint.com/v2/url?u=https-3A\\_www.kuleuven.be\\_personeel\\_jobsite\\_jobs\\_54681979&d=DwICaQ&c=nE\\_W8dFE-shTxStwXtp0A&r=d\\_ce0\\_mh\\_PXvtyDkkix951B\\_s\\_t7QYc8Dtq82B52K8I&m=WLCD7P\\_qFvtR2U65jxXaAF19QvHSM651jDWzmxdnWSs&s=GmGmlvPRRu21NpI8sZRVQe3SnGTmix2sf3Deohe3EMs&e="](https://urldefense.proofpoint.com/v2/url?u=https-3A_www.kuleuven.be_personeel_jobsite_jobs_54681979&d=DwICaQ&c=nE_W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=WLCD7P_qFvtR2U65jxXaAF19QvHSM651jDWzmxdnWSs&s=GmGmlvPRRu21NpI8sZRVQe3SnGTmix2sf3Deohe3EMs&e=) (PhD positions) and

[https://urldefense.proofpoint.com/v2/url?u=https-3A\\_www.kuleuven.be\\_personeel\\_jobsite\\_jobs\\_54681807&d=DwICaQ&c=nE\\_W8dFE-shTxStwXtp0A&r=d\\_ce0\\_mh\\_PXvtyDkkix951B\\_s\\_t7QYc8Dtq82B52K8I&m=WLCD7P\\_qFvtR2U65jxXaAF19QvHSM651jDWzmxdnWSs&s=8KP0-HQXYyVMLKb-Ap76fKZ7Q4yksI7RjxLL9v-xkEU&e="](https://urldefense.proofpoint.com/v2/url?u=https-3A_www.kuleuven.be_personeel_jobsite_jobs_54681807&d=DwICaQ&c=nE_W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=WLCD7P_qFvtR2U65jxXaAF19QvHSM651jDWzmxdnWSs&s=8KP0-HQXYyVMLKb-Ap76fKZ7Q4yksI7RjxLL9v-xkEU&e=) (Postdoc positions)

(click EN for English version).

The research group ESAT-STADIUS

[https://urldefense.proofpoint.com/v2/url?u=http-3A\\_www.esat.kuleuven.be\\_stadius&d=DwICaQ&c=nE\\_W8dFE-shTxStwXtp0A&r=d\\_ce0\\_mh\\_PXvtyDkkix951B\\_s\\_t7QYc8Dtq82B52K8I&m=WLCD7P\\_qFvtR2U65jxXaAF19QvHSM651jDWzmxdnWSs&s=zu6KLPOueZINOGrWeIxrUFabLlcjj2kf01OvbUsxucY&e="](https://urldefense.proofpoint.com/v2/url?u=http-3A_www.esat.kuleuven.be_stadius&d=DwICaQ&c=nE_W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=WLCD7P_qFvtR2U65jxXaAF19QvHSM651jDWzmxdnWSs&s=zu6KLPOueZINOGrWeIxrUFabLlcjj2kf01OvbUsxucY&e=) at

the university KU Leuven Belgium provides an excellent research environment being active in the broad area of mathematical engineering, including data-driven modelling, neural networks and machine learning, nonlinear systems and complex networks, optimization, systems and control, signal processing, bioinformatics and biomedicine.

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From: Robinson, Justin <Justin.Robinson@tandf.co.uk>

Subject: Inverse Problems in Science and Engineering, Volume 26, Issue 9, September 2018 is now available online on Taylor & Francis Online

Date: Wednesday, June 20, 2018

Inverse Problems in Science and Engineering      September 2018      Volume 26, Issue 9

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Original Articles

Simultaneous reconstruction of the time-dependent Robin coefficient and heat flux in heat conduction problems?

Talaat Abdelhamid, A. H. Elsheikh, Ahmed Elazab, S. W. Sharshir, Ehab S. Selima & Daijun Jiang

On efficient reconstruction of boundary data with optimal placement of the source points in the MFS: application to inverse Stefan problems?

G. M. M. Reddy, M. Vynnycky & J. A. Cuminato

Developments in quantitative dimensional synthesis (1970-present): four-bar path and function generation?

Wen-Tzong Lee & Kevin Russell



A new approach to identification of input-driven dynamical systems from probability densities

Xiaokai Nie, Mark Birkin, and Jingjing Luo

Potential reconstruction for a class of hyperbolic systems from incomplete measurements

Nicolás Carreño, Roberto Morales, and Axel Osses

Using eigenvalues to detect anomalies in the exterior of a cavity

S Cogar, D Colton, and P Monk

Extended sampling method in inverse scattering

Juan Liu, and Jiguang Sun

A fast subspace optimization method for nonlinear inverse problems in Banach spaces with an application in parameter identification

Anne Wald

A Biot model for the determination of material parameters of cancellous bone from acoustic measurements

Hua Chen, Robert P Gilbert, and Philippe Guyenne

A hierarchical Bayesian perspective on majorization-minimization for non-convex sparse regression: application to M/EEG source imaging

Yousra Bekhti, Felix Lucka, Joseph Salmon, and Alexandre Gramfort

<http://iopscience.iop.org/issue/0266-5611/34/8>

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

Today's Topics:

5th International Symposium on Inverse Problems, Design and Optimization, IPDO2019

International Conference on Sensing and Imaging, ICSI 2018

Conference on Mathematical and Numerical Approaches for Multi-Wave Inverse Problems, 2019

PhD, Postdoc Positions: Optimization Frameworks for Deep Kernel Machines

Postdoc Position: Algorithms for Image Reconstruction in Spectral

Computed Tomography

Table of Contents: Inverse Problems and Imaging

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Table of Contents: Journal of Inverse and Ill-posed Problems

Submissions for IPNet Digest:

Mail to [ipnet-digest@math.msu.edu](mailto:ipnet-digest@math.msu.edu)

Information about IPNet:

<http://ipnet.math.msu.edu>

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From: George Dulikravich <[dulikrav@fiu.edu](mailto:dulikrav@fiu.edu)>?  
Subject: IPDO2019 announcement and first call for papers  
Date: Sunday, July 1, 2018 at 4:38 AM?

Announcement and first call for papers for 5th international symposium on

INVERSE PROBLEMS, DESIGN AND OPTIMIZATION - IPDO2019

Tianjin, P. R. China

September 24-26,

2019

<http://ipdo2019.ipdos.org>

IPDO sequence of international symposia's main objective is to bring three communities of researchers (inverse problems, multidisciplinary design theory and optimization experts) together in a unique international forum that provides an excellent basis for cross-fertilization of ideas, as well as for the creation of new synergistic approaches and methodologies.

Contributed, invited and keynote papers dealing with robust, efficient solution methods in multidisciplinary practical applications are highly encouraged, such as in nanotechnology, chemistry, physics, aeronautics, astronautics, micro-electronics, bio-medicine, transport and sensing of pollutants, materials design and processing, remote sensing, non-destructive evaluation, variable material property determination, acceleration of single-objective and many-objective optimization algorithms, metamodels for high-dimensional problems, uncertainty quantification, unsupervised deep learning algorithms, real time decision making, and others.

Successful previous versions of the IPDO Symposium were held in Rio de Janeiro, Brazil (2004), Miami Beach, USA (2007), Joao Pessoa, Brazil (2010) and Albi, France (2013).

SUBMISSION OF CONTRIBUTED ABSTRACTS AND FULL PAPERS

Authors should send a two-page abstract in pdf (Portable Document Format) to [IPDO2019@HEBUT.EDU.CN](mailto:IPDO2019@HEBUT.EDU.CN) as an attachment to their e-mail message by

March 15, 2019. Authors of inverse problems abstracts should also consider submitting full papers for review and possible publication in the special issues of Inverse Problems in Science and Engineering.

CHAIR OF THE IPDO2019

Prof. Xu Han  
President of Hebei University  
Tianjin, China  
xhan@hebut.edu.cn

HONORARY CO-CHAIRS OF THE IPDO2019

Prof. George S. Dulikravich  
Florida International University, Miami, USA  
Profs. Helcio R. B. Orlande and Marcelo J. Colaco  
Federal University of Rio de Janeiro, Brazil

INTERNATIONAL ORGANIZING COMMITTEE

Alifanov, O. (Russia), Bonett, M. (France), Cheng, G.D. (China), Cheng, J. (China), Coello Coello, C.A. (Mexico), Duan, B.Y. (China), Egorov, I.N. (Russia), Friswell, M. (UK), Ghattas, O. (USA), Hao, D.N. (Vietnam), Hasanoglu, A. (Turkey), Klivanov, M. (USA), Lesnic, D. (UK), Liu, G.R. (USA), Marin, L. (Romania), Natterer, F. (Germany), Potthast, R. (Germany), Ostrowski, Z. (Poland), Romanov, V.G. (Russia), Sebu, C. (Malta), Silva Neto, A. (Brazil), Slodicka, M. (Belgium), Watzenig, D. (Austria), Yagola, A.G. (Russia), Yuan, Y.X. (China).

IMPORTANT DATES

January 31, 2019 One-page proposals for organizing invited sessions with 5-6 speakers each  
March 15, 2019 Two-page abstracts due April 23, 2019 Abstract acceptance  
June 15, 2019 Full papers due July 15, 2019 Full paper acceptance  
July 1, 2019 - August 24, 2019 Early registration

LOCATION

IPDO2019 Symposium will be held in Holiday Inn Riverside, Tianjin, China, only 30 minutes by a bullet train from Beijing (<https://www.ihg.com/holidayinn/hotels/gb/en/tianjin/tsncr/hoteldetail>).

CONTACT: Prof. Jie Liu Hunan University,  
China IPDO2019@HEBUT.EDU.CN

Submitted by: George S. Dulikravich, Ph.D., FASME, FAAM, FRAeS  
Professor, Founder and Director, MAIDROC Laboratory  
Founder and Editor-in-Chief, Inverse Problems in Science and Engineering journal  
Department of Mechanical and Materials Engineering, Florida International University  
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+1 (954) 554-0368 mobile phone dulikrav@fiu.edu  
<http://maidroc.fiu.edu> <https://www.tandfonline.com/toc/gipe20/current>

-----  
From: "Quinto, Eric Todd" <Todd.Quinto@tufts.edu>  
Subject: International Conference on Sensing and Imaging 2018  
Date: Sunday, July 8, 2018

International Conference on Sensing and Imaging 2018 (ICSI 2018)

October 15-18, 2018  
Guangxi University of Science and Technology, Liuzhou, China  
URL: <http://www.gxust.edu.cn/ICSI2018>

Dear colleagues,

We are happy to inform you about ICSI 2018 at Guangxi University of Science and Technology, Liuzhou, China, on October 15-18, 2018. ICSI 2018 aims to gather together colleagues worldwide in the fields of sensing and imaging. Conference topics include image processing technologies and theory, sensor technologies, and applications include but are not limited to NDE, medical/biological applications including tomography and inverse problems, security, and engineering.

If you would like to speak at ICSI 2018, check out the article submissions page <http://www.gxust.edu.cn/ICSI2018/Publication.html> . The submission deadline is August 15, 2018 and all articles will be peer reviewed. We will notify you of acceptance by September 15.

Accepted articles will be published in the proceedings of the conference in the book series Lecture Notes in Electrical Engineering (LNEE) by Springer & Nature. LNEE is indexed in ISI Proceedings, EI-Compendex, SCOPUS, MetaPress, and Springerlink. We also plan to edit a special issue entitled "Recent developments in Sensing and Imaging" in the journal Sensing and Imaging from Springer & Nature. The Program Committee will recommend 10 - 20 presented work at ICSI 2018 for possible publication in this special issue.

Please contact [lanzengmei@gxust.edu.cn](mailto:lanzengmei@gxust.edu.cn) if you have any questions about the conference.

Sincerely,

Todd Quinto  
On behalf of the Academic Committee (chairs Nathan Ida and Ming Jiang)

Submitted by: Todd Quinto, Robinson Professor of Mathematics, Tufts University

-----  
From: Michel Cristofol AMU <[michel.cristofol@univ-amu.fr](mailto:michel.cristofol@univ-amu.fr)>  
Subject: Conference announcement  
Date: Wednesday, July 18, 2018

We would like to draw your attention to the following conference

Mathematical and Numerical Approaches for Multi-Wave Inverse Problems  
to be held

April 1-5, 2019, in CIRM, Marseille, France.

You can find more details as well as some important dates at

<https://conferences.cirm-math.fr/1953.html>

The focus of this conference is most specifically set on multiwave/hybrid inverse problems. Within that framework, the scientific program has been constructed in order to address the following topics:

- identification and reconstruction of unknown coefficients

- control of coupled phenomena
- regularization
- practical implementation of algorithms and co-design

One of the main objectives of this conference will be the exchange of ideas and tools between different scientific communities, specially to favour the discussions between researchers more involved in theoretical aspects of inverse problems with the ones more interested in numerical implementation of these problems. We have also tried to gather a number of researchers of international renown strongly involved in these multi-modal applications.

We hope to see you next year in Marseille !

Best wishes,

the organizing committee  
(L. Beilina, M. Bergounioux, M. Cristofol, A. da Silva)

Submitted by: Michel Cristofol

-----  
From: Johan Suykens <Johan.Suykens@esat.kuleuven.be>  
Subject: PhD and Postdoc positions KU Leuven: Optimization frameworks for deep kernel machines  
Date: July 18, 2018

PhD and Postdoc positions KU Leuven: Optimization frameworks for deep kernel machines

The research group KU Leuven ESAT-STADIUS is currently offering 2 PhD and 1 Postdoc (1 year, extendable) positions within the framework of the KU Leuven C1 project Optimization frameworks for deep kernel machines (promotors: Prof. Johan Suykens and Prof. Panos Patrinos).

Deep learning and kernel-based learning are among the very powerful methods in machine learning and data-driven modelling. From an optimization and model representation point of view, training of deep feedforward neural networks occurs in a primal form, while kernel-based learning is often characterized by dual representations, in connection to possibly infinite dimensional problems in the primal. In this project we aim at investigating new optimization frameworks for deep kernel machines, with feature maps and kernels taken at multiple levels, and with possibly different objectives for the levels. The research hypothesis is that such an extended framework, including both deep feedforward networks and deep kernel machines, can lead to new important insights and improved results. In order to achieve this, we will study optimization modelling aspects (e.g. variational principles, distributed learning formulations, consensus algorithms), accelerated learning schemes and adversarial learning methods.

The PhD and Postdoc positions in this KU Leuven C1 project (promotors: Prof. Johan Suykens and Prof. Panos Patrinos) relate to the following possible topics:

- 1- Optimization modelling for deep kernel machines
- 2- Efficient learning schemes for deep kernel machines
- 3- Adversarial learning for deep kernel machines

For further information and on-line applying, see

[https://urldefense.proofpoint.com/v2/url?u=https-3A\\_\\_www.kuleuven.be\\_personeel\\_jobsite\\_jobs\\_54740654&d=DwICaQ&c=nE\\_\\_W8dFE-shTxStwXtp0A&r=d\\_ce0\\_mh\\_PXvtyDkkix951B\\_s\\_t7QYc8Dtq82B52K8I&m=JjXaUVFauCZVM\\_rW-9isRpF3JCXVjWs0ExV5mJSlemY&s=DHACdH0GOFzQytiAfDBHKfL1911kDT6wYfLQUIeL7Kg&e="](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.kuleuven.be_personeel_jobsite_jobs_54740654&d=DwICaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=JjXaUVFauCZVM_rW-9isRpF3JCXVjWs0ExV5mJSlemY&s=DHACdH0GOFzQytiAfDBHKfL1911kDT6wYfLQUIeL7Kg&e=) (PhD positions) and  
[https://urldefense.proofpoint.com/v2/url?u=https-3A\\_\\_www.kuleuven.be\\_personeel\\_jobsite\\_jobs\\_54740649&d=DwICaQ&c=nE\\_\\_W8dFE-shTxStwXtp0A&r=d\\_ce0\\_mh\\_PXvtyDkkix951B\\_s\\_t7QYc8Dtq82B52K8I&m=JjXaUVFauCZVM\\_rW-9isRpF3JCXVjWs0ExV5mJSlemY&s=U4YzDIPkyimRuH7A1l5PuaNkrCch5qx5F\\_HLiYZYHr0&e="](https://urldefense.proofpoint.com/v2/url?u=https-3A__www.kuleuven.be_personeel_jobsite_jobs_54740649&d=DwICaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=JjXaUVFauCZVM_rW-9isRpF3JCXVjWs0ExV5mJSlemY&s=U4YzDIPkyimRuH7A1l5PuaNkrCch5qx5F_HLiYZYHr0&e=) (Postdoc position)  
(click EN for English version).

The research group ESAT-STADIUS

[https://urldefense.proofpoint.com/v2/url?u=http-3A\\_\\_www.esat.kuleuven.be\\_stadius&d=DwICaQ&c=nE\\_\\_W8dFE-shTxStwXtp0A&r=d\\_ce0\\_mh\\_PXvtyDkkix951B\\_s\\_t7QYc8Dtq82B52K8I&m=JjXaUVFauCZVM\\_rW-9isRpF3JCXVjWs0ExV5mJSlemY&s=EOnEZqNjlZ5tnaKTQcZTzxxWUVk8jkwRYEfSgUaxJTE&e="](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.esat.kuleuven.be_stadius&d=DwICaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=JjXaUVFauCZVM_rW-9isRpF3JCXVjWs0ExV5mJSlemY&s=EOnEZqNjlZ5tnaKTQcZTzxxWUVk8jkwRYEfSgUaxJTE&e=) at

the university KU Leuven Belgium provides an excellent research environment being active in the broad area of mathematical engineering, including data-driven modelling, neural networks and machine learning, nonlinear systems and complex networks, optimization, systems and control, signal processing, bioinformatics and biomedicine.

-----  
From: Jakob Jorgensen <jakob.jorgensen@manchester.ac.uk>  
Subject: Postdoc in Spectral Tomography Algorithms, University of Manchester, UK  
Date: Tuesday, July 24, 2018

Dear all,

We are looking for an enthusiastic postdoc to join our research group in the Henry Moseley X-ray Imaging Facility at the University of Manchester to work on algorithms for image reconstruction in spectral computed tomography, please see details below.

Best wishes,  
Jakob Jorgensen

Research Associate: A Reconstruction Toolkit for Multichannel CT

The goal of this EPSRC funded research project is to develop a new Reconstruction Toolkit for Multi-channel Computer Tomography (RT-MCT). The purpose is to provide novel functionality for reconstructing multi-spectral tomographic datasets. A key goal of this programme will be to find iterative solutions and optimisation strategies to improve robustness of multi-spectral image reconstruction towards low dose imaging, under-sampled projections and various artefacts.

You will be expected to develop mathematical models of data generation in X-ray CT then use these to devise algorithms to recover images in the most efficient and reliable way. You would be expected to implement this and adapt it to the specific computing architectures available. You will also deploy RT-MCT into operation at our collaborating facilities, which will involve adapting it to the individual data requirements and

educating facility and staff and users. Also you will assist with the supervision of research students, produce reports and presentations for project meetings, as well as writing manuscripts for publication.

Further information can be found at  
<https://www.jobs.manchester.ac.uk/DisplayJob.aspx?JobId=15730>

Informal enquires can be made to  
Dr Martin Turner, [martin.turner@manchester.ac.uk](mailto:martin.turner@manchester.ac.uk)

Closing date:  
21 August 2018.

-----  
From: "Cuixin.zhou" <[newsletter-noreply@aimsciences.org](mailto:newsletter-noreply@aimsciences.org)>  
Subject: New IPI vol. 12, no. 4 August 2018 issue is now available online  
Date: Tuesday, July 10, 2018

Inverse Problems and Imaging (IPI)            August 2018            Volume 12, Number  
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Matti Lassas, Teemu Saksala and Hanming Zhou

On the transmission eigenvalue problem for the acoustic equation with a  
negative index of refraction and a practical numerical reconstruction  
method

<http://aimsciences.org/journal/1930-8337/2018/12/4>

Submitted by: Cuixin Zhou??Publication Editor?  
American Institute of Mathematical Sciences?Springfield, MO 65801 USA?

zhoucuixin@163.com

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From: "noreply@iopscience.org" <noreply@iopscience.org>  
Subject: Inverse Problems, Volume 34, Number 9, September 2018  
Date: Thursday, July 26, 2018 at 6:21 AM?

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Reply

Reply to comment on 'An explicit reconstruction method for magnetic resonance electrical property tomography based on the generalized Cauchy formula' ?  
T Nara

<http://iopscience.iop.org/issue/0266-5611/34/9>

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From: "noreply@degruyter.com" <noreply@degruyter.com>  
Subject: Contents, 'Journal of Inverse and Ill-posed Problems'  
Date: Friday, July 27, 2018

Journal of Inverse and Ill-posed Problems      August 2018      Volume 26,  
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<https://www.degruyter.com/view/j/jiip.2018.26.issue-4/issue-files/jiip.2018.26.issue-4.xml>

----- end -----

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

Today's Topics:

Postdocs: Inverse Problems, Signal and Image Processing/Analysis in Shenzhen

Professorship: Inverse Problems at University of Würzburg

Computational Scientist: Algorithms for Tomographic Imaging at UK STFC

Special Issue: Variational Methods, Algorithms for Imaging & Vision in Inverse Problems

Table of Contents: Inverse Problems and Imaging

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Table of Contents: Nonlinear Analysis: Modelling and Control

Submissions for IPNet Digest:

Mail to [ipnet-digest@math.msu.edu](mailto:ipnet-digest@math.msu.edu)

Information about IPNet:

<http://ipnet.math.msu.edu>

-----  
From: ?? <[jianlu@szu.edu.cn](mailto:jianlu@szu.edu.cn)>?  
Subject: Postdoc Positions in Shenzhen University: Machine Learning, Image Analysis, Computational Harmonic Analysis, Inverse Problems  
Date: Friday, August 24, 2018

Postdoc Positions in Shenzhen University, China?Location: Shenzhen, China?Job Type: Full-Time?Duration: 2 years?Number of Position: 2~3 Positions?Closing Date: Open Until Filled

Description:?We are looking for Postdoctoral Researchers in Applied and Computational Mathematics, Computer Science and related discipline with extensive experience in the following field(s):?

- 1- Machine Learning (deep learning)?
- 2- Signal and Image Processing/Analysis?
- 3- Computer vision?
- 4- Approximation Methods?
- 5- Computational Harmonic Analysis?
- 6- Inverse Problems, etc.

Promoters: ?Prof. Jian Lu (Shenzhen Key Laboratory of Advanced Machine Learning and Applications, College of Mathematics and Statistics)

Prof. Charles K. Chui (Editor-in-Chief, Applied and Computational Harmonic Analysis (ACHA), Elsevier.)

The salary is about 270,000 CNY (40,000 US dollars) per year, of which 120,000 RMB per year comes from a local government source as a tax-free postdoc subsidy. Those who are interested please send their C.V. to Prof. Dr. Jian Lu, whose contact information is as follows: Prof. Jian Lu, College of Mathematics and Statistics, Shenzhen University, Shenzhen 518060, China; e-mail: [jianlu@szu.edu.cn](mailto:jianlu@szu.edu.cn); [jianlu1979@163.com](mailto:jianlu1979@163.com)

-----  
From: Petra Markert-Autsch <[petra.markert-automatik.uni-wuerzburg.de](mailto:petra.markert-automatik.uni-wuerzburg.de)>?

Subject: Job Vacancy: Professorship (W2) for Inverse Problems (Uni Würzburg)

Date: Tuesday, September 25, 2018

The Institute of Mathematics at the University of Würzburg welcomes applications for a ? ?

Professorship (W2) for Inverse Problems ??

to be filled by October 31st, 2018.??

Potential Candidates are expected to be internationally recognized experts in the field of inverse problems.??

Duties will include the representation of Inverse Problems in research, participation in the bachelor's, master's, PhD's, and teacher training courses as well as in the various service courses at the Institute for Mathematics; active participation in the university's graduate programs is also desired. In addition, participation in the academic self-administration is expected.

For further information please visit?http://www.mathematik.uni-wuerzburg.de/bewerbungen/W2Math09-2018 ??

Best regards,?Alfio Borzi

Submitted by: Petra Markert-Autsch,  
Sekretariat Lehrstuhl für Mathematik IX (Wissenschaftliches Rechnen),  
Universität Würzburg

-----  
From: Jakob Jorgensen <jakob.jorgensen@manchester.ac.uk>?  
Subject: UK job vacancy - computational scientist for tomographic imaging  
Date: Thursday, September 27, 2018

Dear all,

We are looking for a computational scientist in the area of algorithms for tomographic imaging. Please see details below.

Best wishes,  
Jakob Jorgensen

The Scientific Computing Department of the Science and Technology Facilities Council (STFC) provides computational support to UK scientific communities through the Computational Science Centre for Research Communities (CoSeC), and support to the large facilities via the Ada Lovelace Centre.

We have a vacancy for a computational scientist in imaging, to contribute to CoSeC support for Collaborative Computational Project in tomographic imaging (CCPi).

This post represents a great opportunity for a suitable candidate with good analytical background in physics, mathematics or computer science, and strong software development capabilities to adapt and expand their expertise in the exciting field of tomographic imaging. We are keen to support the right candidate to advance his/her academic track record in relevant areas.

In terms of software, this is a 'full-stack' role involving software design, development, testing, as well as support.

Full information and how to apply at the following link [http://www.topcareer.jobs/Vacancy/irc246732\\_8715.aspx](http://www.topcareer.jobs/Vacancy/irc246732_8715.aspx)

-----  
From: David Boyt <david.boyt@iop.org>  
Subject: Inverse Problems - Special Issue on Variational Methods and Effective Algorithms for Imaging and Vision  
Date: Wednesday, September 26, 2018

Dear all,

A reminder of the invitation to submit work for a Special Issue on Variational Methods and Effective Algorithms for Imaging and Vision to be published in Inverse Problems [see below].  
The deadline for submission has now been extended to 30 November 2018.

Should you have any queries, please feel free to approach either myself or one the issue's Guest Editors: Carola-Bibiane Schönlieb (copied here), Michael Hintermüller, and Simon Arridge.

Warm regards,  
David

\*\*\*\*\*

From: David Boyt ?  
Subject: Inverse Problems - Special Issue on Variational Methods and Effective Algorithms for Imaging and Vision  
Sent: 10 May 2018 16:28

Dear all,

On behalf of the journal, Inverse Problems, and the Guest Editors, Carola-Bibiane Schönlieb (copied here), Michael Hintermüller, and Simon Arridge, I'm writing to inform you of a new Special Issue on Variational Methods and Effective Algorithms for Imaging and Vision, which is now welcoming submissions.

This special issue aims to collect some of the most recent and most promising mathematical approaches in imaging and computer vision, capturing its theory, numerical methods and applications. The issue is motivated by the recent Isaac Newton Institute programme with the same title but is not limited to contributions from participants. Further information on the Special Issue can be found via the journal's website [here](#).

Should you have any queries, please feel free to approach either myself or the Guest Editors.

Warm regards,  
David

Submitted by: David Boyt?Publisher??  
IOP Publishing?  
Temple Circus, Temple Way, ?Bristol?BS1 6HG?UK??  
Direct line +44 (0)117 930 1062?  
Email: david.boyt@iop.org?  
LinkedIn: [www.linkedin.com/in/david-boyt-01a1434b/](http://www.linkedin.com/in/david-boyt-01a1434b/)



Yves Capdeboscq, Hrand Mamigonians, Aslam Sulaimalebbe, and Vahe Tshitoyan

Imaging small polarizable scatterers with polarization data ?  
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<http://iopscience.iop.org/issue/0266-5611/34/10>

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November 2018

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Heuristic rule for non-stationary iterated Tikhonov regularization in Banach spaces ?  
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A modified transmission eigenvalue problem for scattering by a partially coated crack ?  
Samuel Cogar

Inverse scattering problems on a noncompact star graph ?  
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Reconstruction of a compactly supported sound profile in the presence of a random background medium  
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Nuno V da Silva, Gang Yao, and Michael Warner

A bilevel approach for parameter learning in inverse problems ?  
Gernot Holler, Karl Kunisch, and Richard C Barnard

Equivalence of weak and strong modes of measures on topological vector spaces ?  
Han Cheng Lie, and T J Sullivan

A new version of the convexification method for a 1D coefficient inverse problem with experimental data ?  
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Tikhonov regularization in Hilbert scales under conditional stability assumptions ?

H Egger, and B Hofmann

<http://iopscience.iop.org/issue/0266-5611/34/11>

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From: "noreply@degruyter.com" <noreply@degruyter.com>  
Subject: Contents, 'Journal of Inverse and Ill-posed Problems'  
Date: Friday, September 28, 2018

Journal of Inverse and Ill-posed Problems    October 2018    Volume 26,  
Issue 5

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[https://www.degruyter.com/view/j/jiip.2018.26.issue-5/issue-  
files/jiip.2018.26.issue-5.xml](https://www.degruyter.com/view/j/jiip.2018.26.issue-5/issue-files/jiip.2018.26.issue-5.xml)

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From: Romas Baronas <romas.baronas@mif.vu.lt>  
Subject: Table of Contents, Nonlinear Analysis: Modelling and Control  
23:5

Date: September 3, 2018

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Global exponential stability of positive periodic solutions for a cholera model with saturated treatment

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Application of fractional sub-equation method to nonlinear evolution equations

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Rodica Luca

<https://www.mii.lt/NA/>

----- end -----

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

Today's Topics:

CCIS Special Session: Inverse Problems, Data Assimilation, Uncertainty Quantification

Conference: Mathematical and Numerical Approaches for Multi-Wave Inverse Problems

Lectureship: Applied and Computational Maths, including Imaging

Postdoc & PhD Positions: Optimization on Manifolds

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Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

http://ipnet.math.msu.edu

From: Haroldo <haroldo.camposvelho@inpe.br>
Subject: CCIS 2019: School of Physics - GeorgiaTech (Atlanta, USA)
Date: Sunday, October 14, 2018

2019, 19th to 22th March - CCIS 2019

\*\*\*\*\*
Conference of Computational Interdisciplinary Science (CCIS 2019)
Georgia Tech - School of Physics, March 19th - 22th, 2019
\*\*\*\*\*

http://www.inpe.br/ccis2019/

Dear Colleague,

We are happy to inform you that registration for CCIS 2019 is now open.
In order
to submit your contribution and to start your registration, log in
conference links:

http://www.inpe.br/ccis2019/submission.php
http://www.inpe.br/ccis2019/registration\_fees.php

There will be a special technical session on
"Inverse Problems, Data Assimilation, and Uncertainty Quantification".

See you in Atlanta (USA).

Yours Sincerely,
Haroldo F. de Campos Velho (INPE) and Flavio Fenton (GeogiaTech)
From the CCIS-2019 Organizing Committee

From: Michel Cristofol AMU <michel.cristofol@univ-amu.fr>
Subject: Conference announcement
Date: Tuesday, November 20, 2018

We would like to draw your attention to the following conference

Mathematical and Numerical Approaches for Multi-Wave Inverse Problems  
to be held

April 1-5, 2019, in CIRM, Marseille, France.

You can find more details as well as some important dates at

<https://conferences.cirm-math.fr/1953.html>

The focus of this conference is most specifically set on multiwave/hybrid inverse problems. Within that framework, the scientific program has been constructed in order to address the following topics:

- identification and reconstruction of unknown coefficients
- control of coupled phenomena
- regularization
- practical implementation of algorithms and co-design

One of the main objectives of this conference will be the exchange of ideas and tools between different scientific communities, specially to favour the discussions between researchers more involved in theoretical aspects of inverse problems with the ones more interested in numerical implementation of these problems. We have also tried to gather a number of researchers of international renown strongly involved in these multi-modal applications.

There are no fees, and grants are available for young researchers.

We hope to see you next year in Marseille !

Best wishes,  
the organizing committee  
(L. Beilina, M. Bergounioux, M. Cristofol, A. da Silva, A. Litman)

-----  
From: "Chen, Ke" <K.Chen@liverpool.ac.uk>  
Subject: Lectureship post in Applied and Computational Maths  
Date: Thursday, November 22, 2018

The Department of Mathematical Sciences at the University of Liverpool invites applications for a lectureship position in the area of Applied and Computational Mathematics, affiliated with the Engineering and Physical Sciences Research Council funded Liverpool Centre for Mathematics in Healthcare.

We are particularly interested in individuals from areas like data, imaging, learning and computational sciences who are also keen on developing novel mathematics for industrial or clinical applications. The University is committed to diversity and equality of opportunity.

See <https://tinyurl.com/Liverpool-Post-Mar2019> for full details.

Application deadline: 1 March 2019.

-----  
From: Roland Herzog <roland.herzog@mathematik.tu-chemnitz.de>  
Subject: Three openings in Optimization on Manifolds (2 postdocs, 1 Ph.D.)





Sombuddha Bhattacharyya

Bayesian approach to a nonlinear inverse problem for a time-space fractional diffusion equation  
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A regularization method based on level sets and augmented Lagrangian for parameter identification problems with piecewise constant solutions  
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Erratum: Equivalence of weak and strong modes of measures on topological vector spaces (2018 Inverse Problems 34 115013)  
Han Cheng Lie, and T J Sullivan

<http://iopscience.iop.org/issue/0266-5611/34/12>

-----  
From: "Robinson, Justin" <Justin.Robinson@tandf.co.uk>  
Subject: Inverse Problems in Science and Engineering, Volume 27, Issue 1, January 2019 is now available online on Taylor & Francis Online  
Date: Tuesday, November 20, 2018

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2019                      Volume 27, Issue 1

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<https://www.tandfonline.com/toc/gipe20/27/1>

Submitted by:

Justin Robinson

Managing Editor | Taylor & Francis | Routledge Journals

Mathematics | Statistics | History of Science | Science, Technology & Society

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----- end -----

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

Today's Topics:

Advanced school: Thermal Measurements and Inverse  
Techniques  
Conference on Scientific Computation, including Image  
Restoration,  
Ill-posed Problems  
Deadlines, CCIS Special Session: Inverse Problems, Data  
Assimilation,  
Uncertainty  
Tenure Track Position: Applied Statistics at Kent State  
University  
PhD Studentships: Cambridge Mathematics of Information  
Table of Contents: Journal of Inverse and Ill-posed  
Problems  
Table of Contents: Inverse Problems in Science and  
Engineering

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Mail to [ipnet-digest@math.msu.edu](mailto:ipnet-digest@math.msu.edu)

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

-----  
From: Denis Maillet <[Denis.Maillet@univ-lorraine.fr](mailto:Denis.Maillet@univ-lorraine.fr)>  
Subject: Advanced school: Thermal Measurements and Inverse Techniques  
Date: Sunday, December 9, 2018

Advanced school: Thermal Measurements and Inverse Techniques  
METTI 7  
Sep.18-Oct.4, 2019, Porquerolles island, France

This 7th advanced METTI school <http://iusti.cnrs.fr/metti7> is aimed at theoretical and practical ways of tackling several important questions that are met in inverse problems in heat transfer such as:

- A heat source exists at a location inaccessible to measurement: what can be learnt about it from distant measurements?
- Can a single experiment allows the estimation of all the parameters of a thermal model?
- How to design the ideal experiment to estimate the thermophysical properties of a material or of a physical system?
- The thermal model used in an experiment is too time and memory consuming, how can it be reduced?

All these questions are related to inversion of thermal measurements: looking either for the causes responsible for observable consequences measured by a thermal signal or for the corresponding influencing parameters. Since a direct model links causes and consequences, the complete inverse approach requires to consider the triptych Measurements / Model / Inversion with equal effort for each of its parts.

These points will be discussed in the courses and tutorials sessions in the pleasant venue of Porquerolles island, Hyeres (Var) in the south of France. ?Preregistration is now open on the above website.

Denis Maillet

-----  
From: Lothar Reichel <reichel@math.kent.edu>  
Subject: ETNA 25 Conference on Sardinia, Italy, May 27-29  
Date: December 22, 2018

We cordially invite you to attend the conference "Recent Advances in Scientific Computation", which is planned on the occasion of the 25th anniversary of the Electronic Transactions on Numerical Analysis (ETNA). The conference will take place on May 27-29, 2019, at Santa Margherita di Pula outside Cagliari, Sardinia, Italy. A focus of the conference will be new developments in large-scale computation. Many areas will be covered, including image restoration, Krylov subspace iterative methods, preconditioning, matrix functions, the solution of partial differential equations, network analysis, and the solution of ill-posed problems. The conference also will celebrate Fiorella Sgallari's 65th birthday. Further information about the conference, including plenary speakers, special sessions, and how to register, can be found at the web site [https://urldefense.proofpoint.com/v2/url?u=http-3A\\_bugs.unica.it\\_ETNA25&d=DwIBAg&c=nE\\_W8dFE-shTxStwXtp0A&r=d\\_ce0\\_mh\\_PXvtyDkkix951B\\_s\\_t7QYc8Dtq82B52K8I&m=foHAsdOAe-SBqEh3B9jOCVTaWDxfM06KrTqRhTU\\_ppk&s=8FTtZFSovCs8-UMNygQ1MsCbkM3aePdBySTnwd9T4b0&e=](https://urldefense.proofpoint.com/v2/url?u=http-3A_bugs.unica.it_ETNA25&d=DwIBAg&c=nE_W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=foHAsdOAe-SBqEh3B9jOCVTaWDxfM06KrTqRhTU_ppk&s=8FTtZFSovCs8-UMNygQ1MsCbkM3aePdBySTnwd9T4b0&e=)

On behalf of the organizing committee

Ronny Ramlau, Lothar Reichel, and Giuseppe Rodriguez

-----  
From: Haroldo <haroldo.camposvelho@inpe.br>  
Subject: CCIS 2019: School of Physics - GeorgiaTech (Atlanta, USA) - New Deadlines  
Date: December 18, 2018

\*\*\*\*\*  
Conference of Computational Interdisciplinary Science (CCIS 2019)

Georgia Tech - School of Physics, March 19th - 22th, 2019  
\*\*\*\*\*

\*\* Important Dates \*\*

- January 15th, 2019: Deadline for abstracts submission
- January 25th, 2019: Abstracts acceptance
- February 05th, 2019: Deadline for full paper submission
- February 15th, 2019: Paper acceptance
- March 19th, 2019: End of Registration
- March 19th - 22th: CCIS 2019

\* Conference web-page and Conference information \*

- CCIS 2019 web-page:<http://www.inpe.br/ccis2019/>
- Venue for CCIS 2019: School of Physics of the Georgia Institute of Technology (Atlanta, GA, USA).
- Period: 19-22/March/2019

\* Overview \*

The Conference of Computational Interdisciplinary Science (CCIS 2019) aims to be a meeting for researchers and students working in areas of science using scientific computing. It is an initiative of the Pan-American Association on Computational Interdisciplinary Sciences (PACIS). Although there are other forums that discuss related topics, such as Applied Mathematics, Bioinformatics, and Computational Physics, the CCIS 2019 seeks, in an innovative way, a broader dialog, which is inherently inter- and multidisciplinary, where researchers from different fields can share their experiences and find solutions to their computational problems.

The conference program consists of keynote lectures, contributed sessions and tutorials on Computational Mathematics, Computational Physics and Astronomy, Computational Chemistry, Computational Biology, and computational issues in geosciences. Topics like computational methods applied in Space and Environmental Sciences, Technology, Innovation and Economy are also in the conference scope.

Contributions can be oriented toward applications of computational methods, algorithms, numerical simulations and high-performance computing (HPC) in Science and Technology. The official language for the conference, including presentations and submissions, is English.

CCIS 2019 will focus on the following topics:

- Hybrid computing
- GPU/GPGPU scientific computing
- Computational Grid Applications
- Cloud Computing and e-Science
- Quantum Computing
- Frontiers of Computational Physics and Fluid Dynamics
- Frontiers of Computational Chemistry & Biology
- Computational Data Analysis, Simulation and Modeling
- Validation in Astrophysics and Cosmology
- Scientific Computing in Science and Engineering
- Environmental Sciences and Geography Modeling
- Image processing
- Big Data, Data Science, and Data Mining
- Parallel Numerical Algorithms
- Libraries for Numerical Computations
- Languages, Tools and Environments for Programming Numerical Algorithms
- Applications of Numerical Algorithms in Science and Technology
- Scientific Computing in Science and Engineering
- Software Engineering for Scientific Applications
- Soft-computing for Scientific Applications
- Applications of Computer Science
- Optimization and inverse problems
- Uncertainty quantification and data assimilation

We are waiting for you in Atlanta!

Flavio Fenton (GeorgiaTech) and Haroldo F. de Campos Velho (INPE)  
From the CCIS-2019 Organizing Committee

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From: Lothar Reichel <reichel@math.kent.edu>  
Subject: Faculty Position, Applied Statistics, Kent State University  
Date: December 21, 2018

Kent State University's Department of Mathematical Sciences invites applications for a full-time, tenure-track, open rank position in Applied Statistics. The appointment is to begin August 21, 2019. The salary and other conditions of employment are competitive.

Qualifications include a Ph.D. in Statistics, or a closely related degree program. Preference will be given to candidates with expertise in Applied Statistics, including Data Science, Large-Scale Data Analysis, Computational Statistics, Actuarial Science, and related areas. Candidates are expected to support the established research strengths of the department as well as to contribute to the interdisciplinary outreach of the department through active collaborations with other disciplines to develop new undergraduate and graduate programs in Statistics. Further details of the position can be found at [https://urldefense.proofpoint.com/v2/url?u=http-3A\\_\\_jobslist.kent.edu\\_cw\\_en-2Dus\\_job\\_496162\\_faculty-2Dtenure-2Dtrack9-2Dmo&d=DwIDaQ&c=nE\\_\\_W8dFE-shTxStwXtp0A&r=d\\_ce0\\_mh\\_PXvtyDkkix951B\\_s\\_t7QYc8Dtq82B52K8I&m=XqQpsRfISL53GKFyGk8R4Jj09SJWk9Umm4LGjRt8ifg&s=7pQx-1FvHKOOGKcay9QUUb5RV2EHkUj1jnorJWI-\\_pA&e=](https://urldefense.proofpoint.com/v2/url?u=http-3A__jobslist.kent.edu_cw_en-2Dus_job_496162_faculty-2Dtenure-2Dtrack9-2Dmo&d=DwIDaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=XqQpsRfISL53GKFyGk8R4Jj09SJWk9Umm4LGjRt8ifg&s=7pQx-1FvHKOOGKcay9QUUb5RV2EHkUj1jnorJWI-_pA&e=)

The individual hired for this position will be expected to establish an extramurally funded research program, engage in collaborative research and direct theses and dissertations, and exhibit a commitment to excellence in undergraduate and graduate education. funded research program. For further information about the department, please visit the web site [https://urldefense.proofpoint.com/v2/url?u=http-3A\\_\\_www.kent.edu\\_math&d=DwIDaQ&c=nE\\_\\_W8dFE-shTxStwXtp0A&r=d\\_ce0\\_mh\\_PXvtyDkkix951B\\_s\\_t7QYc8Dtq82B52K8I&m=XqQpsRfISL53GKFyGk8R4Jj09SJWk9Umm4LGjRt8ifg&s=tyIo5pltDR9-Ub13KKZz62ZzN942ZTYNRYjK3CmyAS0&e=.](https://urldefense.proofpoint.com/v2/url?u=http-3A__www.kent.edu_math&d=DwIDaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=XqQpsRfISL53GKFyGk8R4Jj09SJWk9Umm4LGjRt8ifg&s=tyIo5pltDR9-Ub13KKZz62ZzN942ZTYNRYjK3CmyAS0&e=)

To apply for this position, fill in an application at [jobs.kent.edu](http://jobs.kent.edu), and attach a cover letter, a curriculum vitae, a publication list, a research statement, and a teaching statement. In addition, please send at least three (3) letters of reference to: [stat-search@math.kent.edu](mailto:stat-search@math.kent.edu).

Questions regarding this position may be also be sent to [stat-search@math.kent.edu](mailto:stat-search@math.kent.edu). Screening of applicants will begin immediately and will continue until the position is filled.

Kent State University is an Equal Opportunity/Affirmative Action Employer with a strong commitment to the achievement of excellence and diversity among its faculty, staff, and students.

-----

From: CMI Admin <cmi@maths.cam.ac.uk>  
Subject: CMI studentships  
Date: December 17, 2018

The CMI (Cambridge Mathematics of Information), based at the Faculty of Mathematics of the University of Cambridge, invites applications to the course which includes fully funded studentships.??

This cutting-edge training centre in the Mathematics of Information will produce a new generation of leaders in the theory and practice of modern data science, with an emphasis on the mathematical underpinnings of this new scientific field. The programme will continue activities of CCIMI as well as those of CCA, with significant new components.??

We welcome applications from students interested in subject areas covering all aspects of the broad field of mathematics of information. Potential supervisors are listed on the website. Prospective students are encouraged to discuss areas of interest relating to the course with potential supervisors. Current projects (via CCIMI) can be viewed on the website.??

PhD Studentships are fully funded to include University Composition Fees and maintenance for the duration of the course to match the UKRI (previously RCUK) minimum level, and the scheme is open to nationals from all countries. ??

To find out more: [www.maths.cam.ac.uk/cmi](http://www.maths.cam.ac.uk/cmi) or email [cmi@maths.cam.ac.uk](mailto:cmi@maths.cam.ac.uk).

Submitted by: Tessa Blackman?Faculty of Mathematics Graduate Office?  
Centre for Mathematical Sciences, University of Cambridge?Tel: 01223  
337921  
[www.maths.cam.ac.uk/cmi](http://www.maths.cam.ac.uk/cmi)

-----  
From: "noreply@degruyter.com" <noreply@degruyter.com>  
Subject: Contents, 'Journal of Inverse and Ill-posed Problems'  
Date: Thursday, November 29, 2018

Journal of Inverse and Ill-posed Problems      December 2018      Volume  
26, Issue 6

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<https://www.degruyter.com/view/j/jiip.2018.26.issue-6/issue-files/jiip.2018.26.issue-6.xml>

-----  
From: "Robinson, Justin" <Justin.Robinson@tandf.co.uk>  
Subject: IPSE Volume 27, Issue 2, February 2019  
Date: Thursday, December 6, 2018

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27, Issue 2

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Nonlinear Tikhonov regularization in Hilbert scales with balancing principle tuning parameter in statistical inverse problems  
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Zhiwei Qiao, Yining Zhu, Gage Redler & Shaojie Tang

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Kun Li, Xing-Yao Yin & Zhao-Yun Zong

<https://www.tandfonline.com/toc/gipe20/27/2>

Submitted by:

Justin Robinson

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