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

Today's Topics:

Conference: Inverse Problems Symposium 2019
Postdoctoral Position; Inverse Problems for PDE in Genoa
Table of Contents: Inverse Problems
Table of Contents: Nonlinear Analysis: Modelling and

Control

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: "Mishra, Dharmendra K" <mishra67@purdue.edu>
Subject: Inverse Problems Symposium 2019
Date: Saturday, January 12, 2019

We welcome you to the West Lafayette, IN campus for the Inverse Problems Symposium 2019.

Presentations in all areas having to do with inverse problems are welcome.

If you are interested in organizing a session, please let me know. Here is the website for more information:

<https://www.inverseproblems2019.org>

Thank you and looking forward to seeing you at the symposium.

Best regards,
Dharmendra Mishra

Submitted by: Dharmendra Mishra, Ph.D.
Assistant Professor, Extension Food Technologist
Department of Food Science, Purdue University
Philip E. Nelson Hall of Food Science
745 Agriculture Mall Dr., West Lafayette, IN 47907-2009
Phone: 765.494.2594 Fax: 765.494.7953
www.ag.purdue.edu/foodsci

From: Giovanni S Alberti <alberti@dima.unige.it>
Subject: Postdoctoral position in Genoa on Inverse Problems for PDE
Date: Tuesday, January 22, 2019

it is a pleasure to announce the call for a Postdoctoral Researcher at the Department of Mathematics of the University of Genoa on Inverse Problems for PDE. Prospective candidates are expected to be familiar with inverse problems, PDE or applied harmonic analysis. Experience with machine learning is considered a strong plus.

The start of the position is planned in April 2019 (or shortly thereafter), and the duration of the contract is 1+1 years (initially one year, and then renewable).

Simultaneous-shot inversion for PDE-constrained optimization problems with missing data

Michelle Liu, Rajiv Kumar, Eldad Haber and Aleksandr Aravkin

Revealing cracks inside conductive bodies by electric surface measurements

Andreas Hauptmann, Masaru Ikehata, Hiromichi Itou and Samuli Siltanen

A hybrid reconstruction approach for absorption coefficient by fluorescence photoacoustic tomography

Chao Wang and Tie Zhou

A method for quantitative imaging of electrical properties of human tissues from only amplitude electromagnetic data

Martina T Bevacqua, Gennaro G Bellizzi, Lorenzo Crocco and Tommaso Isernia

A non-iterative approach to inverse elastic scattering by unbounded rigid rough surfaces

Guanghui Hu, Xiaoli Liu, Bo Zhang and Haiwen Zhang

Deep null space learning for inverse problems: convergence analysis and rates

Johannes Schwab, Stephan Antholzer and Markus Haltmeier

<https://iopscience.iop.org/issue/0266-5611/35/2>

From: Romas Baronas <romas.baronas@mif.vu.lt>

Subject: Table of Contents, Nonlinear Analysis: Modelling and Control 24:2

Date: January 31, 2019

Nonlinear Analysis: Modelling and Control 2019 Volume 24,
Number 2, 2019

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Contents

Global dynamics of a fourth-order parabolic equation describing crystal surface growth

Ning Duan, Xianyun Xu

Approximate solutions for solving nonlinear variable-order fractional Riccati differential equations

Eid H. Doha, Mohamed A. Abdelkawy, Ahmed Z.M. Amin, Dumitru Baleanu

Hilfer fractional evolution hemivariational inequalities with nonlocal initial conditions and optimal controls

Yatian Pei, Yong-Kui Chang

Positive solutions of higher order fractional integral boundary value problem with a parameter

Xinan Hao, Luyao Zhang, Lishan Liu

Stability analysis of fractional differential equations with unknown parameters

Mehmet Emir Koksal

Normal form of double-Hopf singularity with 1:1 resonance for delayed differential equations

Xiaoqin P. Wu, Liancheng Wang

On Fu?ik type spectrum for problem with integral nonlocal boundary condition

Natalija Sergejeva, Sigita Pe?iulyt?

A nonlinear control system with a Hilfer derivative and its optimization

Rafa? Kamocki

Randomly stopped minima and maxima with exponential-type distributions

Olena Ragulina, Jonas Šiaulys

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

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

Today's Topics:

Second Call for Abstracts: Inverse Problems Symposium 2019
Registration Open: Chemnitz Symposium on Inverse Problems, On Tour in Frankfurt
Abstract Deadline: 5th Int'l Symposium on Inverse Problems, Design & Optimization
Conference Announcement: Projection Algorithms, Stefan Kaczmarz 125th Birthday
New Book: Inverse Imaging with Poisson Data, From Cells to Galaxies
PhD position: Inverse Problems in Geomagnetism, TU Bergakademie Freiberg
Table of Contents: Journal of Inverse and Ill-posed Problems

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: "Mishra, Dharmendra K" <mishra67@purdue.edu>
Subject: Inverse Problems Symposium 2019
Date: Monday, February 11, 2019

The Inverse Problems Symposium 2019?
Second Call for Abstract Submission!

The symposium will be held at Purdue University on May 29-31, 2019

Follow this link for abstract submission and registration:
<https://www.inverseproblems2019.org??>

Deadline for abstract submission: March 29, 2019

This is the 32nd 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

We also welcome session organizers. Please contact Dharmendra Mishra (mishradh@purdue.edu) if you wish to organize a session.??

Important dates, abstract submission, travel information and accommodation details are available at the link below.
[https://www.inverseproblems2019.org??](https://www.inverseproblems2019.org?)

Thank you and looking forward to seeing you in West Lafayette.??

Contact Information:??

Conference Chairman: Dharmendra Mishra, Assistant Professor?
Extension Food Technologist?
Department of Food Science, Purdue University?
Philip E. Nelson Hall of Food Science?
745 Agriculture Mall Dr.?
West Lafayette, IN 47907-2009?
Phone: (765) 494-2594?
mishradh@purdue.edu

Honorary Chairman: Dr. James V. Beck, Professor Emeritus,
Michigan State University, beck@msu.edu??

Conference Co-Chair: 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

From: Jan-F. Pietschmann <jfpietschmann@math.tu-chemnitz.de>
Subject: Chemnitz Symposium on Tour in Frankfurt, 2019
Date: February 18, 2019

Dear Friends and Colleagues,
we are happy to announce that the registration for this year's Chemnitz Symposium on Inverse Problems, on tour in Frankfurt, is now open. The Symposium will take place from September 30th to October 2nd, 2019.

All details can be found at

https://urldefense.proofpoint.com/v2/url?u=https-3A__www.chemnitz-2Dam.de_ipsym2019_&d=DwICaQ&c=nE__W8dFE-shTxStwXtp0A&r=BD2GkxRfNot2tppB7yJILODRvYg43-qopz1DlDaUj0I&m=16s2p7sB_sCfnM2ZtZ1fzmYh2wFQCksbH6kjdu7zUoM&s=5Bm6LQ_zKNpTGTyhtrmZgSjl2WoerWtyhXTxmdF7fvQ&e=

Please feel free to forward this information to anybody who could be interested.

We are looking forward to seeing you in Frankfurt.

Best regards,

Bastian Harrach & Jan-F. Pietschmann

Submitted by: Prof. Dr. Jan-Frederik Pietschmann
Faculty of Mathematics, TU Chemnitz, 09107 Chemnitz, Germany
email jfpietschmann@math.tu-chemnitz.de

From: IPDO 2019 <ipdo2019@hebut.edu.cn>
Subject: IPDO 2019 2nd Call-for-abstracts
Date: February 21, 2019

Dear Colleague,

On behalf of the sponsor of the conference, we are very pleased to inform you that the 5th International Symposium on Inverse Problems, Design and Optimization (IPDO2019) is going to be held during September 24-26, 2019 at Tianjin, China, and the deadline for submitting the two-page abstract is March 31, 2019.

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.

Currently, we have succeeded in attracting renowned first class scientists with significant contributions to the scientific literature from all over the world and received at least 21 MS proposals. The four plenary speakers for the symposium are Prof. H. Thomas Banks, USA, Prof. Gengdong Cheng, China, Prof. Kalyanmoy Deb, USA and Prof. Jari Kaipio, New Zealand, and the six keynote speaks are Prof. Anatoly G. Yagola, Russia, Prof. Isaac Elishakoff, USA, Prof. Igor N. Egorov, Russia, Prof. Daniel Lesnic, UK, Prof. Gyung-Jin Park, South Korea and Prof. Yanfei Wang, China. For more information, you can visit the symposium website: <http://ipdo2019.ipdos.org>, which will be updated constantly.

The Flyer of IPDO 2019 may be found here:

<http://ipdo2019.ipdos.org/Flyer.html>

Please mark your calendar, and prepare for your abstract submission that will be due on March 31, 2019. We look forward to your two-page abstract, and hope this symposium will support your research and empower you to make an even greater impact in your field.

Best regards,
Prof. Xu Han, Chairman of IPDO2019
xhan@hebut.edu.cn
Profs. George S. Dulikravich, Helcio R. B. Orlande and Marcelo J. Colaco, Honorary Chairman of IPDO2019,
dulikrav@fiu.edu, helcio@mecanica.ufrj.br, colaco@ufrj.br
Prof. Jie Liu, Secretariat, IPDO2019
liujie@hnu.edu.cn

From: Andrzej Cegielski <a.cegielski@wmie.uz.zgora.pl>
Subject: Conference "Projection Algorithms: Stefan Kaczmarz 125th birthday anniversary"
Date: Friday, February 15, 2019

I would like to announce the Conference "Projection Algorithms: Stefan Kaczmarz 125th birthday anniversary", B?dlewo, Poland, August 31st - - September 5th, 2020,
<https://www.impan.pl/en/activities/banach-center/conferences/20-projection>

With best regards,

Andrzej Cegielski

From: Mario Bertero <bertero@disi.unige.it>
Subject: New book: Inverse Imaging with Poisson Data
Date: Thursday, February 21, 2019

A new book on Inverse Problems

Title: Inverse Imaging with Poisson Data
Subtitle: From Cells to Galaxies

Authors: M. Bertero, P. Boccacci and V. Ruggiero

IOP Publishing

The Introduction can be freely downloaded from
<https://iopscience.iop.org/chapter/978-0-7503-1437-4/bk978-0-7503-1437-4chl.pdf>

This is an ebook available in the formats PDF, ePub and kindle; hard copy is also available.

Mario Bertero, Professor in Information Science
E-mail: bertero@disi.unige.it
URL : <http://www.disi.unige.it/person/BerteroM>
DIBRIS
Universita' di Genova
Via Dodecaneso, 35
I-16146 Genova, Italy

From: Christian Gerhards <christian.gerhards@geophysik.tu-freiberg.de>
Subject: PhD position, Geomathematics, TU Bergakademie Freiberg
Date: Friday, February 8, 2019

PhD position, Geomathematics, TU Bergakademie Freiberg

Within the Geomathematics and Geoinformatics Group there is an opening for a 3-year PhD position working on inverse problems in geomagnetism. More details can be found here:
<https://tu-freiberg.de/sites/default/files/2019-28.fak3-englisch.pdf>

Interested candidates can directly contact
christian.gerhards@geophysik.tu-freiberg.de

Best regards,
Christian Gerhards

Submitted by: Prof. Dr. Christian Gerhards
TU Bergakademie Freiberg, Geomathematics and Geoinformatics Group

Gustav-Zeuner-Strasse 12, Room 304
09596 Freiberg, Germany
E-Mail: christian.gerhards@geophysik.tu-freiberg.de
<https://tu-freiberg.de/en/fakult3/gy/mageo>

From: "noreply@degruyter.com" <noreply@degruyter.com>
Subject: eTOC Alert 'Journal of Inverse and Ill-posed Problems'
Date: Sunday, February 3, 2019

Journal of Inverse and Ill-posed Problems February 2019 Volume 27,
Issue 1

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Inverse space-dependent source problem for a time-fractional diffusion equation by an adjoint problem approach?
Yan, Xiong Bin / Wei, Ting

On an inverse spectral problem for one integro-differential operator of fractional order?
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Parameter identification for the linear wave equation with Robin boundary condition?
Bacchelli, Valeria / Pierotti, Dario / Micheletti, Stefano / Perotto, Simona

Numerical resolution of optimal control problem for the in-stationary Navier-Stokes equations?
Satouri, Jamil

On the asymptotic study of transmission problem in a thin domain?
Benseghir, Aissa / Benseridi, Hamid / Dilmi, Mourad

A coupled complex boundary expanding compacts method for inverse source problems?
Zhang, Ye / Gong, Rongfang / Gulliksson, Mårten / Cheng, Xiaoliang

Contrast enhanced tomographic reconstruction of vascular blood flow with first order and second order adjoint methods?
Sixou, Bruno

On an asymmetric backward heat problem with the space and time-dependent heat source on a disk?
Minh Le, Triet / Hoang Pham, Quan / Hong Luu, Phong

Semi-heuristic parameter choice rules for Tikhonov regularisation with operator perturbations?
Hämarik, Uno / Kangro, Urve / Kindermann, Stefan / Raik, Kemal

The enclosure method for inverse obstacle scattering over a finite time interval: V. Using time-reversal invariance?
Ikehata, Masaru

<https://www.degruyter.com/view/j/jiip.2019.27.issue-1/issue-files/jiip.2019.27.issue-1.xml>

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

Today's Topics:

2nd IMA Conference On Inverse Problems From Theory To Application
Call for Abstracts Extended: 5th Intl Symposium on Inverse Problems (IPDO2019)
Call for Abstracts Extended: Inverse Problems Symposium (IPS 2019)?
Postdoc Position: Inverse problems, PDE, Applied Harmonic Analysis, Machine Learning
Table of Contents: Inverse Problems

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: Pam Bye <Pam.Bye@ima.org.uk>

Subject: 2nd IMA Conference On Inverse Problems From Theory To Application

Date: March 27, 2019

2nd IMA Conference On Inverse Problems From Theory To Application

4-6 September 2019

University College London, Gower Street, London, UK

An inverse problem refers to a situation where the quantity of interest cannot be measured directly, but only through an action of a nontrivial operator of which it is a parameter. The corresponding operator, also called forward operator, stems from a physical application modelling. Prominent examples include: Radon and Fourier transforms for X-ray CT and MRI, respectively or partial differential equations e.g. EIT or DOT. The prevalent characteristics of inverse problems is their ill-posedness i.e. lack of uniqueness and/or stability of the solution. This situation is aggravated by the physical limitations of the measurement acquisition such as noise or incompleteness of the measurements. Inverse problems are ubiquitous in applications from bio-medical, science and engineering to security screening and industrial process monitoring. The challenges span from the analysis to efficient numerical solution. This conference will bring together mathematicians and statisticians, working on theoretical and numerical aspects of inverse problems, as well as engineers, physicists and other scientists, working on challenging inverse problem applications. We welcome industrial representatives, doctoral students, early career and established academics working in this field to attend.

Topic list: Imaging; Inverse problems in partial differential equations (Memorial Lecture for Slava Kurylev); Model and data driven methods for inverse problems; Optimization and statistical learning; Statistical inverse problems

For further information about this Conference, please visit our website at:

<https://ima.org.uk/11329/2nd-ima-conference-on-inverse-problems-from-theory-to-application/>

Submitted by: Pamela Bye
Conference Support Officer
Institute of Mathematics and its Applications
Tel: 01702 354020

From: IPDO 2019 <ipdo2019@hebut.edu.cn>
Subject: Call for Abstract Extended till 30th April 2019 | The 5th
International Symposium on Inverse Problems, Design and Optimization
(IPDO2019)
Date: April 15, 2019

Dear colleagues,

Due to overwhelming requests for an extension of the abstract submission deadline, we will extend the deadline of the submissions to 30th April 2019. We thank everyone who have submitted your abstracts and look forward to more from your colleagues.

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. 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). The upcoming 5th International Symposium on Inverse Problems, Design and Optimization (IPDO2019) will be held in Tianjin, China, during September 24-26, 2019, and Hebei University of Technology (China) is proud to facilitate the organization.

Currently, we have succeeded in attracting renowned first class scientists with significant contributions to the scientific literature from all over the world. The four plenary speakers for the symposium are Prof. H. Thomas Banks from USA, Prof. Gengdong Cheng from China, Prof. Kalyanmoy Deb from USA and Prof. Jari Kaipio from New Zealand. The six keynote speakers are Prof. Anatoly G. Yagola from Russia, Prof. Qing Li from Australia, Prof. Igor N. Egorov from Russia, Prof. Daniel Lesni from UK, Prof. Gyung-Jin Park from South Korea and Prof. Yanfei Wang from China. The MS organizers include Prof. Roland Potthast from German, Prof. Daniel Watzenig from Austria, Prof. Sergey Kabanikhin from Russia, Prof. Tommy H.T. Chan from Australia, et al. and Profs. Bo Han, Haitian Yang, Zhihai Xiang, Chao Jiang and Gongsheng Li et al. from China.

For more information, please visit: <http://ipdo2019.ipdos.org>, which will be updated constantly.

Please find a copy of the Flyer of IPDO 2019 at
<http://ipdo2019.ipdos.org/Flyer.html>
please mark your calendar, and prepare for your abstract submission that will be due on April 30, 2019.

We look forward to your two-page abstract, and hope this symposium will support your research and empower you to make an even greater impact in your field.

Best regards,
Prof. Xu Han, Chairman of IPDO2019

xhan@hebut.edu.cn

Profs. George S. Dulikravich, Helcio R. B. Orlande and Marcelo J. Colaco,
Honorary Chairman of IPDO2019

dulikrav@fiu.edu, helcio@mecanica.ufrj.br, colaco@ufrj.br

Prof. Jie Liu, Secretariat, IPDO2019

liujie@hnu.edu.cn

From: Dharmendra Mishra <mishradh@purdue.edu>

Subject: IPS 2019 Abstract Submission Deadline Extended!

Date: April 1, 2019

?

The Inverse Problems Symposium 2019?Abstract Submission Deadline Extended
to April 15!

[**** NOTE: The website still seems to be accepting abstracts.

Please see website or contact organizers for more information. -Ed]

The symposium will be held at Purdue University on May 29-31, 2019

Follow this link for abstract submission and registration:

<https://www.inverseproblems2019.org>

Deadline for abstract submission extended to April 15, 2019

This is the 32nd 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

We also welcome session organizers. Please contact Dharmendra Mishra
(mishradh@purdue.edu) if you wish to organize a session.

Important dates, abstract submission, travel information and
accommodation details are available at the link below.

<https://www.inverseproblems2019.org>

Thank you and looking forward to seeing you in West Lafayette.

Contact Information:

Conference Chairman:
Dharmendra Mishra, Assistant Professor
Extension Food Technologist
Department of Food Science, Purdue University
Philip E. Nelson Hall of Food Science
745 Agriculture Mall Dr.
West Lafayette, IN 47907-2009
Phone: (765) 494-2594
mishradh@purdue.edu

Honorary Chairman: Dr. James V. Beck, Professor Emeritus, Michigan State University, beck@msu.edu??

Conference Co-Chair: ??
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??

Jason Ostanek, Assistant Professor?
School of Engineering Technology?
School of Aviation and Transportation Technology?
Environmental and Ecological Engineering?
Purdue University?
(765) 494-9359?
jostanek@purdue.edu?

From: Giovanni S Alberti <giovanni.alberti@unige.it>
Subject: Postdoctoral Position in Mathematical Analysis at the University of Genoa - Expression of interest?
Date: Friday, April 12, 2019

Hello,

It is a pleasure to announce the call for a Postdoctoral position in Mathematical Analysis at the Department of Mathematics of the University of Genoa. The main research themes will be inverse problems, PDE, applied harmonic analysis and machine learning. Candidates who are familiar with one or more of these topics are encouraged to apply.

The start of the position is planned in September 2019, and the duration of the contract is 1+1 years.

At this stage, perspective candidates are only asked to get in touch with me by sending their CV by the 5th May. The official call will open in May, and I will contact you personally with some instructions on the application procedure (which is not that simple even with a PhD in Maths!).

Please feel free to circulate this announcement.

Best wishes

Giovanni S. Alberti?

Department of Mathematics?University of Genoa?
www.dima.unige.it/~alberti/
giovanni.alberti@unige.it
+390103536913

From: <noreply@iopscience.org>
Subject: Inverse Problems, Volume 35, Numbers 3/4, March/April 2019
Date: April 9, 2019

Inverse Problems March 2019 Volume 35, Number 3
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Special Issue Papers:

An inverse boundary value problem for the p -Laplacian: a linearization approach ?
Antti Hannukainen, Nuutti Hyvönen and Lauri Mustonen

Some analytic properties of the cone transform ?
Fatma Terzioglu

The V-line transform with some generalizations and cone differentiation ?
G Ambartsoumian and M J Latifi Jebelli

Papers:

Multichannel blind deconvolution via maximum likelihood estimator:
application in neural recordings
S Akhavan, S Esmaeili, M Kamarei and H Soltanian-Zadeh

An accelerated primal-dual iterative scheme for the L_2 -TV regularized
model of linear inverse problems ?
Wenyi Tian and Xiaoming Yuan

Hierarchical Bayesian models and sparsity: ℓ_2 -magic ?
D Calvetti, E Somersalo and A Strang

Inverse problems for nonlinear quasi-variational inequalities with an
application to implicit obstacle problems of p -Laplacian type
Stanisław Migórski, Akhtar A Khan and Shengda Zeng

Convexification of electrical impedance tomography with restricted
Dirichlet-to-Neumann map data
Michael V Klibanov, Jingzhi Li and Wenlong Zhang

Unique determination of a penetrable scatterer of rectangular type for
inverse Maxwell equations by a single incoming wave ?
Guanghai Hu, Long Li and Jun Zou

An inverse space-dependent source problem for hyperbolic equations and
the Lipschitz-like convergence of the quasi-reversibility method ?
Loc Hoang Nguyen

Acousto-electric tomography with total variation regularization ?
Bolaji James Adesokan, Bjørn Jensen, Bangti Jin and Kim Knudsen

Landweber-Kaczmarz for parameter identification in time-dependent inverse
problems: all-at-once versus reduced version ?
Tram Thi Ngoc Nguyen

<https://iopscience.iop.org/issue/0266-5611/35/3??>

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Special Issue Papers:

Hybrid PET-MR list-mode kernelized expectation maximization reconstruction ?

Daniel Deidda, Nicolas A Karakatsanis, Philip M Robson, Yu-Jung Tsai, Nikos Efthimiou, Kris Thielemans, Zahi A Fayad, Robert G Aykroyd and Charalampos Tsoumpas

Papers:

Locating a complex inhomogeneous medium with an approximate factorization method ?

Fenglong Qu and Haiwen Zhang

An inverse problem for an electroseismic model describing the coupling phenomenon of electromagnetic and seismic waves ?

Eric Bonnetier, Faouzi Triki and Qi Xue

Carleman estimates for the time-fractional advection-diffusion equations and applications ?

Xinchu Huang, Zhiyuan Li and Masahiro Yamamoto

Compressive time-of-flight 3D imaging using block-structured sensing matrices ?

Stephan Antholzer, Christoph Wolf, Michael Sandbichler, Markus Dielacher and Markus Haltmeier

Bayesian inverse problems for recovering coefficients of two scale elliptic equations ?

Viet Ha Hoang and Jia Hao Quek

A regularized weighted least gradient problem for conductivity imaging ?

A Tamasan and A Timonov

Real-time adaptive optics with pyramid wavefront sensors: part I. A theoretical analysis of the pyramid sensor model ?

Victoria Hutterer, Ronny Ramlau and Iuliia Shatkhina

Real-time adaptive optics with pyramid wavefront sensors: part II. Accurate wavefront reconstruction using iterative methods ?

Victoria Hutterer, Ronny Ramlau and Iuliia Shatkhina

PDE-based numerical method for a limited angle x-ray tomography ?

Micheal V Klivanov and Loc H Nguyen

A reaction coefficient identification problem for fractional diffusion ?

Enrique Otárola and Tran Nhan Tam Quyen

String-averaging algorithms for convex feasibility with infinitely many sets ?

T Yung Kong, Homeira Pajoohesh and Gabor T Herman

Approximation of continuous EIT data from electrode measurements with
Bayesian methods ?
D Calvetti, S Nakkireddy and E Somersalo

<https://iopscience.iop.org/issue/0266-5611/35/4>
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Today's Editor: Patricia (Patti) K. Lamm, Michigan State University

Today's Topics:

Conference: Modern Challenges in Imaging in the Footsteps of Allan MacLeod Cormack

PostDoc: Inverse Problems, PET Imaging and Optimisation, at Bath, UK

Table of Contents: Inverse Problems

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: Todd Quinto <Todd.Quinto@tufts.edu>

Subject: Conference on Modern Challenges in Imaging in the Footsteps of Allan MacLeod Cormack

Date: Friday, April 26, 2019

Dear Colleagues,

Registration is now open for the Conference on Modern Challenges in Imaging

In the Footsteps of Allan MacLeod Cormack, On the Fortieth Anniversary of his Nobel Prize, August 5-9, 2019, at Tufts University, Medford, MA, USA.

For info and to register, go to

https://urldefense.proofpoint.com/v2/url?u=http-3A__go.tufts.edu_Cormack2019_&d=DwIGaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=sDUp16PYwie6cTJFSJOKxZRNbK7Ng7oS2ksftpjC7r0&s=7Yf8pgUNkF6YwG95WHZNCyQoyyCBYAFRzalFEJpjRbE&e=

The deadline for abstracts is June 1 and the deadline for discounted registration is June 10.

The conference will gather top international researchers in mathematics, engineering, science, and medicine. A range of modalities will be represented, such as X-ray CT, dynamic tomography, optical tomography, photo/thermoacoustic CT, spectral imaging, and ultrasound. Limited view geometries including microlocal reconstruction of singularities, sparse sampling, regularization, dictionary learning, and related approaches will

be represented. Underpinnings of the field, including algorithmic issues, machine learning, integral geometry and generalized Radon transforms will be discussed, and a range of applications in medicine, security, industry, and science will be considered. A few historical talks will be given.

Besides minisymposia and plenary talks, we will offer a poster session for

students and others who are not speaking. Students and beginners will be invited to a networking lunch.

Please encourage your students and others to register at

https://urldefense.proofpoint.com/v2/url?u=http-3A__math.tufts.edu_faculty_equinto_Cormack2019_registration.html&d=DwIGaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=sDUpl6PYwie6cTJFSJOKxZRNbK7Ng7oS2ksftpjC7r0&s=NiB7QXWv3AFr5BNy47cXGCUZ0nToYH0HKWPG3sFKO4k&e=
and go to the Student Application Section.

NSF funding has been recommended by the program officer and we might have other external support, too. Students, researchers from underrepresented groups, and beginning researchers will have the highest priority for funding.

We hope to see you in Medford this August!

Sincerely,

Todd Quinto
on behalf of the organizers Fulton Gonzalez, Bernadette Hahn,
Misha Kilmer, Eric Miller, Gaël Rigaud, and myself

From: Matthias Ehrhardt <me549@bath.ac.uk>?
Subject: 3-year PostDoc on inverse problems, PET imaging and
optimisation, Bath, UK
Date: Monday, April 29, 2019?

Research Associate in Randomised Optimisation for Large-Scale Tomographic
Image Reconstruction (fixed-term role)

A position exists for a Research Associate to work on the development of
stochastic optimisation methods for large-scale tomographic image
reconstruction, within the EPSRC project PET++: Improving Localisation,
Diagnosis and Quantification in Clinical and Medical PET Imaging with
Randomised
Optimisation <https://gow.epsrc.ukri.org/NGBOViewGrant.aspx?GrantRef=EP/S026045/1>.

This project is a collaborative project between mathematicians in Bath
and Cambridge, medical researchers and clinicians from Addenbrookes'
hospital and GE Healthcare, with support from advisors from UCL, Oxford,
Kings College London, University of Helsinki and KTH Stockholm. We build
on the insights from our previous research and continue to develop
advanced image reconstruction techniques directly tailored to PET imaging
applications, putting a strategy in place to ensure that successful
methods are adopted widely in healthcare.

For more details, see <https://www.bath.ac.uk/jobs/Vacancy.aspx?ref=CC6696>

Submitted by: Matthias J Ehrhardt, PhD, Prize Fellow
Institute for Mathematical Innovation, University of Bath, UK
<https://mehrhardt.github.io>

From: "noreply@iopscience.org" <noreply@iopscience.org>
Subject: Contents, Inverse Problems, Volume 35, Number 5, May 2019
Date: Friday, May 3, 2019 at 12:00 AM?

Inverse Problems May 2019 Volume 35, Number 5
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Special Issue Papers:

Anisotropic osmosis filtering for shadow removal in images ?
Simone Parisotto, Luca Calatroni, Marco Caliari, Carola-Bibiane Schönlieb
and Joachim Weickert

Special Issue on Variational Methods and Effective Algorithms for Imaging
and Vision

Analysis of new direct sampling indicators for far-field measurements ?
Isaac Harris and Andreas Kleefeld

Special Issue in Memory of Professor Armin Lechleiter

Phase retrieval with background information ?

Ziyang Yuan and Hongxia Wang

Inverse wave propagation problems without phase information

A least-squares functional for joint exit wave reconstruction and image
registration ?

Christian Doberstein and Benjamin Berkels

Special Issue on Variational Methods and Effective Algorithms for Imaging
and Vision

Compton scatter tomography in annular domains ?

T T Truong and M K Nguyen

Special Issue on Generalized Radon Transforms and Applications in
Tomography

Papers:

Enhancing joint reconstruction and segmentation with non-convex Bregman
iteration ?

Veronica Corona, Martin Benning, Matthias J Ehrhardt, Lynn F Gladden,
Richard Mair, Andi Reci, Andrew J Sederman, Stefanie Reichelt and Carola-
Bibiane Schönlieb

Error estimates for Arnoldi-Tikhonov regularization for ill-posed
operator equations ?

Ronny Ramlau and Lothar Reichel

Theory of the linear sampling method for time-dependent fields ?

Aaron C Prunty and Roel K Snieder

A new Kaczmarz-type method and its acceleration for nonlinear ill-posed
problems ?

Haie Long, Bo Han and Shanshan Tong

Regularization of inverse problems via time discrete geodesics in image
spaces ?

Sebastian Neumayer, Johannes Persch and Gabriele Steidl

Inverse source problem in a forced network ?

J G Caputo, A Hamdi and A Knippel

<https://iopscience.iop.org/issue/0266-5611/35/5>

----- end -----

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

Today's Topics:

Upcoming Registration Deadline: Chemnitz Symposium on Tour in Frankfurt

Registration Open: Advanced school: Thermal Measurements & Inverse Techniques

Registration Open: Inverse Problems from Theory to Application, UK

Call for Papers: Topics in Inverse Problems at PIERS in Xiamen, China

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

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: Jan-F. Pietschmann <jfpietschmann@math.tu-chemnitz.de>
Subject: Reminder: Chemnitz Symposium on Tour in Frankfurt, 2019
Date: Tuesday, May 14, 2019

Dear Friends and Colleagues,
this is a reminder that the registration for this year's Chemnitz Symposium on Inverse Problems, on tour in Frankfurt, and taking place from

September 30th to October 2nd, 2019

is already open. The deadline for registration is

* June 30, 2019. *

All details can be found at

https://urldefense.proofpoint.com/v2/url?u=https-3A__www.chemnitz-2Dam.de_ipsym2019_&d=DwICaQ&c=nE__W8dFE-shTxStwXtp0A&r=BD2GkxRfNot2tppB7yJILODRvYg43-qopz1DlDaUj0I&m=W-H9w3Dig-Dz7E5B5NCftJ6L7kYfTwvF6ixEbnxSW1c&s=THsnDA3UGYoaQcIFmnQlMYbim-ByiGhuxBT9tOWwlOI&e=

We would be very happy to welcome you in Frankfurt this fall.

Best regards,
Bastian Harrach & Jan-F. Pietschmann

Prof. Dr. Jan-Frederik Pietschmann
Faculty of Mathematics
TU Chemnitz, 09107 Chemnitz, Germany
email jfpietschmann@math.tu-chemnitz.de
phone +49 371 531 36901

From: Denis Maillet <Denis.Maillet@univ-lorraine.fr>
Subject: Advanced school: Thermal Measurements and Inverse Techniques
Date: Wednesday, May 22, 2019

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 as well as registration are now open on the above website.

N.B.: the proceedings of the preceding schools are downlable at :

<http://www.sft.asso.fr/document.php?pagendx=12299> (for Metti 5)
<http://www.sft.asso.fr/metti-6.html> (for Metti 6)

Submitted by: Denis Maillet
e-mail: denis.maillet@univ-lorraine.fr

From: Pamela Bye pam.bye@ima.org.uk
Subject: Inverse Problems from Theory to Application, UK, Sep 2019
Date: Friday, June 14, 2019??

2nd IMA Conference On Inverse Problems From Theory To Application 4-6?September 2019, University College London, Gower Street, London, WC1E?6BT, UK??

An inverse problem refers to a situation where the quantity of?interest cannot be measured directly, but only through an action of a?nontrivial operator of which it is a parameter. The corresponding?operator, also called forward operator, stems from a physical?application modelling. Prominent examples include: Radon and Fourier?transforms for X-ray CT and MRI, respectively or partial differential?equations e.g. EIT or DOT. The prevalent characteristics of inverse?problems is their ill-posedness i.e. lack of uniqueness and/or?stability of the solution. This situation is aggravated by the?physical limitations of the measurement acquisition such as noise or?incompleteness of the measurements. Inverse problems are ubiquitous in?applications from bio-medical, science and engineering to security?screening and industrial process monitoring. The

challenges span from the analysis to efficient numerical solution. This conference will bring together mathematicians and statisticians, working on theoretical and numerical aspects of inverse problems, as well as engineers, physicists and other scientists, working on challenging inverse problem applications. We welcome industrial representatives, doctoral students, early career and established academics working in this field to attend.

Topic list: Imaging; Inverse problems in partial differential equations (Memorial Lecture for Slava Kurylev) Model and data driven methods for inverse problems; Optimization and statistical learning; Statistical inverse problems.

Call for Papers - Papers will be accepted for the conference based on a 100 word abstract for oral or poster presentation. We welcome abstracts to be submitted by 30 June via https://urldefense.proofpoint.com/v2/url?u=https-3A_my.ima.org.uk&d=DwIBAQ&c=nE_W8dFE-shTxStwXtp0A&r=e3hMoihI-CgaL4e-VWcjOhsJb6Lg8FbptIXTFDPUMuc&m=YesQ0k_eolPWlho7BOewRyWKBzcIJYjY1XS7All6tFQ&s=4kpaWQ7Ukd4-FE6yamWMlfVeoMTHHQjthYPiOMaYFA0&e= . Please indicate whether your title is intended for oral "presentation" or "poster" presentation. Please send your abstracts in plain text format (no equations).

Registration is now open via https://urldefense.proofpoint.com/v2/url?u=https-3A_my.ima.org.uk&d=DwIBAQ&c=nE_W8dFE-shTxStwXtp0A&r=e3hMoihI-CgaL4e-VWcjOhsJb6Lg8FbptIXTFDPUMuc&m=YesQ0k_eolPWlho7BOewRyWKBzcIJYjY1XS7All6tFQ&s=9MgzpB7fSXGXPsJ80aGqfdltr9E1IxTrlAkuy20aZQ4&e= ??

For further information about this Conference, please visit: https://urldefense.proofpoint.com/v2/url?u=https-3A_ima.org.uk_11329_2nd-2Dima-2Dconference-2Don-2Dinverse-2Dproblems-2Dfrom-2Dtheory-2Dto-2D&d=DwIBAQ&c=nE_W8dFE-shTxStwXtp0A&r=e3hMoihI-CgaL4e-VWcjOhsJb6Lg8FbptIXTFDPUMuc&m=YesQ0k_eolPWlho7BOewRyWKBzcIJYjY1XS7All6tFQ&s=KpQXt39CDw8_ckBRaQ7QP_Snif0wRbKwnf0mFi6Gt8g&e=application/

From: PIERS OFFICE <office@piers.org>
Subject: 1st Call for Papers: PIERS 2019 in Xiamen, CHINA (17 - 20 December) - Where microwave and lightwave communities meet
Date: Sunday, May 19, 2019

This is to cordially invite you to participate in the 42nd Photonics and Electromagnetics Research Symposium (PIERS) to be held on 17-20 December 2019 (from Tuesday to Friday) in Xiamen, China.

<http://www.piers.org/piers2019Xiamen/> ? ?

PIERS (Photonics and Electromagnetics Research Symposium, also known as Progress In Electromagnetics Research Symposium), provides an international forum for reporting progress and recent advances in the modern development of electromagnetics, photonics and exciting applications. Topics include electromagnetic theory, photonics, quantum optics, plasmonics, metamaterials, antennas, microwave technologies, acoustics, computational electromagnetics, electromagnetic compatibility, scattering, remote sensing, radars, radiometry, imaging, radiative transfer, material effects, inverse problems and all other modern developments in electromagnetics and photonics.

Since PIERS 2013 in Stockholm, PIERS has evolved from a mainly EM-based symposium to become the confluence of microwave and optics/photonic communities with over 1000 registered participants. PIERS full papers will be submitted for publication in IEEE Xplore. Author of an accepted abstract is invited (though not required) to submit a full paper of 3 - 10 pages.

To encourage young scientists and students to contribute to PIERS with presentations of timely and noteworthy research results, two special young scientist programs are organized at PIERS 2019 in Xiamen.

=== Best Student Paper Awards (BSPA) ===== ?

Any full-time university student, who is the first author as well as the presenting author of a paper submitted for oral presentation at PIERS 2019 Rome, can apply for the Best Student Paper Award (BSPA). Three Prize Winners (First, Second, and Third Prizes) and two Honorable Mentions will be selected for each of the five topic areas SC1 to SC5 by the PIERS Young Scientist Program Committee. A full paper of 5 - 10 pages is required for the evaluation of the technical quality. The full paper should be submitted by the full paper submission deadline and registered by the pre-registration deadline.

?=== Young Scientist Award (YSA) ===== ?To qualify for applications for YSA, one must have a PhD degree in science or engineering and be under 40 years of age by the conference date. The applicant must be listed as the first author as well as the presenting author of a paper submitted for oral presentation. A curriculum vitae with publication list must be submitted together with the abstract. A full paper of 5 - 10 pages should be submitted by the full paper submission deadline and registered by the pre-registration deadline. Awardees will be selected after peer-review of the applications by the PIERS Young Scientist Program Committee. For details on the application procedures of BSPA & YSA, please visit <http://www.piers.org/piers2019Rome/> ? ?

PIERS 2019 Xiamen has the following five topic areas, each having a Subcommittee (SC) responsible for creating a fruitful technical program in that area:

- SC1. Computational Electromagnetics, Electromagnetic Compatibility, Scattering and Electromagnetic Theory ?
- SC2. Metamaterials, Plasmonics and Complex Media ?
- SC3. Optics and Photonics ?
- SC4. Antennas and Microwave Technologies ?
- SC5. Remote Sensing, Inverse Problems, Imaging, Radar and Sensing

=== Focus Sessions ===== ?

At PIERS 2019 Xiamen, Focus Sessions are also planned. Each Focus Session should be focused on a specific hot topic that must be timely and reflect the future trends or the latest scientific advances in the area. The leadership of the conference will select the topics of Focus Sessions and the responsible organizers. The organizers of a Focus Session should be active and leading scientists of the area, and should make a best effort to ensure high quality of the session by inviting high-profile keynote speakers and excellent invited speakers. Some contributed oral papers are also encouraged but the quality of these papers must be strictly controlled.

List of confirmed Focus and Special Sessions to date can be found at <http://piers.org/piers2019Xiamen/session.php>

Programs for the past PIERS are available online at

?<http://piers.org/piers/>

Should you be interested in organizing a Special Session at PIERS 2019 in Xiamen, please fill out the Survey Form at

?<http://piers.org/piers/submit/survey.php> . ?

You may also contact the chairs directly if you have any queries.

=== PIERS Exhibition & Sponsorship ===== ?

If your institution or company wishes to apply for exhibition or sponsorship at PIERS 2019 Xiamen, please contact PIERS OFFICE via email: office@piers.org

===== ?

PIERS Suggested Topics: ?

- 1 Electromagnetic theory ?
- 2 Computational electromagnetics, hybrid methods ?
- 3 Spectra, time, and frequency domain techniques ?
- 4 Fast iteration, large scale and parallel computation ?
- 5 Transmission lines and waveguide discontinuities ?
- 6 Resonators, filters, interconnects, packaging, MMIC ?
- 7 Antenna theory and radiation ?
- 8 Microstrip and printed antennas, phase array antennas ?
- 9 RF and wireless communication, multipath ?
- 10 Power electronics, superconducting devices ?
- 11 Systems and components, electromagnetic compatibility ?
- 12 Nano scale electromagnetics, MEMS ?
- 13 Magnetic levitation, transportation and collision avoidance ?
- 14 Precision airport landing systems, GPS ?
- 15 Radar sounding of atmosphere, ionospheric propagation ?
- 16 Microwave remote sensing and polarimetry, SAR ?
- 17 Subsurface imaging and detection technology, GPR ?
- 18 Active and passive remote sensing systems ?
- 19 Electromagnetic signal processing and machine learning ?
- 20 Rough surface scattering and volume scattering ?
- 21 Remote sensing of the earth, ocean, and atmosphere ?
- 22 Scattering, diffraction, and inverse scattering ?
- 23 Microwave and millimeter wave circuits and devices, CAD ?
- 24 Wireless power transfer and harvesting ?
- 25 Medical electromagnetics, biological effects, bioimaging ?
- 26 Microwave photonics, THz technology ?
- 27 Biophotonics, optical sensors and environmental monitoring ?
- 28 Novel optical fibers and fiber-based devices ?
- 29 Advanced photonic materials and nanophotonics ?
- 30 Optoelectronic devices and integration ?
- 31 Optical and wireless networking for communication and sensing ?
- 32 Light emitting and lasing ?
- 33 Light harvesting, photovoltaics, optoelectronics in energy ?
- 34 Coherent optics, ultrafast optics ?
- 35 Quantum optics/electrodynamics, computing and information theory ?
- 36 Metamaterials and plasmonics ?
- 37 Biological media, composite and random media ?
- 38 Plasmas, nonlinear media, fractal, chiral media ?
- 39 Constitutive relations and bianisotropic media ?
- 40 Moving media, relativity, field quantization, and others ?

Kindly be aware that there is no financial support provided for our invitees. All participants are required to register for the conference.

We very much look forward to seeing you at PIERS 2019 in Xiamen, where microwave and lightwave communities will meet again!

With our best regards,
Prof. Qing Huo Liu, Duke University, General Chair
Prof. Weng Cho Chew, Purdue University, General Co-Chair ?Prof. Sailing
He, Royal Institute of Technology, Zhejiang University, General Co-Chair
?Prof. Kazuya Kobayashi, Chuo University, Japan, General Co-Chair
and
Prof. Leung Tsang, University of Michigan, PIERS Chair
?-- ?
PIERS OFFICE ?The Electromagnetics Academy ?
Email: office@piers.org ?
<http://emacademy.org/> ?
<http://piers.org/> ?

From: "noreply@degruyter.com" <noreply@degruyter.com>?
Subject: eTOC Alert 'Journal of Inverse and Ill-posed Problems'
Date: Thursday, June 13, 2019 at 4:27 PM?

Journal of Inverse and Ill-posed Problems June 2019 Volume 27, Issue
3

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Source identification problems for hyperbolic differential and difference
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Ashyralyev, Allaberen / Emharab, Fathi

The Regularized Weak Functional Matching Pursuit for linear inverse
problems?

Kontak, Max / Michel, Volker

An inversion formula for the transport equation in \mathbb{R}^3 using complex
analysis in several variables?

Saberi Fathi, Seyed Majid

Non-recombining trinomial tree pricing model and calibration for the
volatility smile?

Gong, Wenxiu / Xu, Zuoliang?

Using Landweber iteration to quantify source conditions - a numerical
study?

Gerth, Daniel

Shape sensitivity analysis for identification of voids under Navier's
boundary conditions in linear elasticity?

Méjri, Bochra

On a method for solving the inverse Sturm-Liouville problem?

Kravchenko, Vladislav V.

Inverse scattering for the higher order Schrödinger operator with a first
order perturbation?

Huang, Hua / Duan, Zhiwen / Zheng, Quan

On recovering a Sturm-Liouville-type operator with the frozen argument
rationally proportioned to the interval length?

Buterin, Sergey A. / Vasiliev, Sergey V.

An inverse problem for Sturm-Liouville operators on the half-line with
complex weights?

Yurko, Vjacheslav

Inverse Sturm-Liouville problems for non-Borg conditions?
Korotyaev, Evgeny L.

Theory and numerical methods for solving inverse and ill-posed problems?
Kabanikhin, S.I. / Shishlenin, M.A.

<https://www.degruyter.com/view/j/jiip.2019.27.issue-3/issue-files/jiip.2019.27.issue-3.xml>
----- end -----

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

Today's Topics:

Call for Papers: Int'l Conf. on Image, Video Processing and Artificial Intelligence

Call for Abstracts: 1st?Workshop in Industrial Mathematics, with Inverse Problems

Save the Date: 10th Int'l Conf. on Inverse Problems in Engineering

PostDoc: Inverse Problems, Optimisation, Large-scale Tomographic Image Reconstruction

Table of Contents: Inverse Problems

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: IVP AI2019 <mojianiangke314697@163.com>?

Subject: IVP AI2019

Date: Sunday, June 30, 2019

IVPAI2019 - call for papers?

2019 International conference on Image, Video Processing and Artificial Intelligence?

2019.08.24-25 Shanghai?China?

Topics are mainly about computer science, AI. The research and application.?

We cooperated with SPIE, to publish papers. Which could be indexed by EI, SCOPUS, CPCI?

Detail? www.ivpai.org

From: Marco Martinolli marco.martinolli@polimi.it?[via NADIGEST]

Subject: Industrial Mathematics, Austria, Oct 2019??

Date: July 11, 2019?

We are pleased to announce this Call for Abstracts for the 1st?Workshop in Industrial Mathematics (WIM2019), to be held in Strobl,?Austria from October 14th to October 17th 2019. The workshop will?feature a wide range of exciting talks, discussions, and networking?opportunities with experts and researchers in the mathematical fields?of 'Optimization and Inverse Problems', 'Coupled Systems' and 'Reduced?Order Methods'. The focus on industrial applications will be?specifically addressed during an industry-featured session, hosting?speakers with direct experience on industrial mathematics. To find?more details about the event, the program, and the registration?procedure, please visit our website at https://urldefense.proofpoint.com/v2/url?u=https-3A_www.romsoc.eu_wim2019_&d=DwIBAQ&c=nE_W8dFE-shTxStwXtp0A&r=e3hMoihI-CgaL4e-VWcjOhsJb6Lg8FbptIXTFDPUMuc&m=Enxx-

5G7h_HkTEvYHpyBJSloUMr6IHQ_RLyMFBrZqgE&s=-
n2Z9e9wUowZm9d9tGUFsLhKG57IHsScqR0ikc37T0o&e= .??

The Organizing Committee is inviting the community to submit abstracts for oral and poster presentations. All abstracts must be sent as a PDF file via e-mail to wim2019@romsoc.eu before Sunday 1st September.??

From: "filippo.demonte@ing.univaq.it" <filippo.demonte@ing.univaq.it>?
Subject: ICIPE 20, save-the-date May 18-21, 2020 - First Announcement
Date: Thursday, July 4, 2019

Dear Inverse Colleagues,??

On behalf of the Organizing Committee, we are pleased to inform you that the "10th International Conference on Inverse Problems in Engineering (ICIPE 2020)" will be held on May 18-21, 2020, in Francavilla al Mare (Chieti), Italy.??

ICIPE 20 intends to be a global forum for researchers and engineers to present and discuss recent innovations and new techniques in Applied and Fundamental Inverse Analysis. We will also be honoring Professor James V. Beck, for his outstanding contributions to parameter estimation and inverse heat transfer analysis. The abstract deadline is in mid-October 2019, and draft manuscripts will be due in mid-January 2020.

Flyer: <http://icipe20.univaq.it/icipe2020/wp-content/uploads/2019/07/ICIPE-2020-Flyer-1.pdf>

We would be grateful if you could disseminate this save-the-date email and conference flyer to your colleagues. The conference website is: <http://icipe20.univaq.it>.? ?

We are looking forward to meeting you at ICIPE 20!?

With our best regards,? ?

Filippo de Monte (University of L'Aquila, Italy), Conference Chair? ?
Keith A. Woodbury (University of Alabama, USA), ICIPE Steering Committee? ?
Kirk Dolan (Michigan State University, USA), IPS Steering Committee

Website: <http://icipe20.univaq.it>

Submitted by: Prof. Ing. Filippo de Monte
Department of Industrial and Information
Engineering and Economics
Univ L'Aquila, Italy

From: Matthias Ehrhardt <me549@bath.ac.uk>?
Subject: 3-year PostDoc on inverse problems and optimisation @Bath, UK
Date: Tuesday, July 23, 2019

A position exists for a Research Associate to work on the development of algorithms for large-scale tomographic image reconstruction

This post is part of a collaborative project between mathematicians in Bath and Cambridge, medical researchers and clinicians from Addenbrookes'

Nyström subsampling method for coefficient-based regularized regression ?
Longda Ma, Lei Shi and Zongmin Wu

Recursive linearization method for inverse medium scattering problems
with complex mixture Gaussian error learning ?
Junxiong Jia, Bangyu Wu, Jigen Peng and Jinghuai Gao

A direct imaging method for half-space inverse elastic scattering
problems ?
Zhiming Chen and Shiqi Zhou

An application of sparse measure valued Bayesian inversion to acoustic
sound source identification
Sebastian Engel, Dominik Hafemeyer, Christian Münch and Daniel Schaden

Logarithmic stability for a coefficient inverse problem of coupled
Schrödinger equations ?
Fangfang Dou and Masahiro Yamamoto

Stability estimates for the fault inverse problem ?
Faouzi Triki and Darko Volkov

<https://iopscience.iop.org/issue/0266-5611/35/7>
----- end -----

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

Today's Topics:

Invitation: Synergistic Reconstruction Symposium in Chester, UK

PostDoc: Machine Learning for Human Performance Prediction at Tufts

PostDoc: Deep Learning for Computational Imaging, LANL

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Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: Jakob Jorgensen <jakob.jorgensen@manchester.ac.uk>
Subject: Invitation - Synergistic Reconstruction Symposium - Nov 2019 -
Chester, UK
Date: Friday, August 23, 2019

INVITATION
Synergistic Reconstruction Symposium
3 - 6 November 2019
Chester, UK

Dear colleague,

We wish to wholeheartedly invite you to attend a two-day scientific symposium on Synergistic Image Reconstruction which will take place on the 3rd and 4th of November 2019 at the historical town of Chester (near Manchester) in the UK. The symposium will be followed by a two-day hands-on software training school on the software packages

SIRF: Synergistic Image Reconstruction Framework
(<https://www.ccppetmr.ac.uk/>)
CIL: Core Imaging Library (<https://www.ccpi.ac.uk/cil>)

The event aims to bring together researchers from different scientific fields and application areas, including biomedical and industrial imaging, interested in novel methods and software for extracting multi-parametric imaging information from multiple datasets. The symposium will consist of invited talks by leading researchers and a poster session.

More information about the event and the registration procedure for both the symposium and software training school can be found at

www.synergimrecon.org

The registration deadline is on the 15th of September 2019, but space is limited so early registration is recommended.

Both events will be free of charge and a number of travel bursaries will be provided for a number of students and post-docs who will present posters.

Kind regards, on behalf of the organisers,
Jakob Jorgensen

The University of Manchester

Chair:

Kris Thielemans, UCL

Co-chairs:

Charalampos 'Harry' Tsoumpas, Leeds

Jakob Jorgensen, Manchester

Christoph Kolbitsch, PTB

Richard Brown, UCL (software training)

Organisers:

Simon Arridge, UCL

David Atkinson, UCL

Nikos Dikaios, Surrey

Matthias Ehrhardt, Bath

Daniil Kazantsev, Diamond Light Source

Bill Lionheart, Manchester

Julian Matthews, Manchester

Claudia Prieto, KCL

Andrew Reader, KCL

Martin Turner, Manchester

From: Eric Miller <elmiller@ece.tufts.edu>?

Subject: Post doctoral position: machine learning for human performance prediction

Date: Thursday, August 1, 2019

Applications are invited for a postdoctoral position in the area of machine learning and data analytics for human performance understanding and prediction, a collaborative effort at Tufts University among the Department of Electrical and Computer Engineering, Department of Computer Science, the Center for Applied Brain and Cognitive Sciences (CABCS) at Tufts University and the U.S. Army Combat Capabilities Development Command Soldier Center at Natick., MA This appointment would be for 12-18 months with an estimated start date of October 2019. ??

The primary project is entitled "Real time prediction of individual and team performance metric from neurophysiological measurements and team interaction data". Under this project, the fellow will work with Tufts faculty, Drs. Shuchin Aeron, Michael Hughes, and Eric Miller, as well as CABCS scientists to develop supervised and semi-supervised machine learning algorithms that are capable of predicting cognitive state (e.g. stress) and task performance metrics (e.g. speed or marksmanship) from labeled and unlabeled multimodal physiological sensor data including information collected continuously as a function of time (e.g. accelerometer recordings or GPS trajectories) as well as data at a relatively few points in time before, during, and after a specific task (e.g. surveys and performance evaluations). In addition to assessing individuals, data will be collected to support the characterization of team and intergroup dynamics. We anticipate the effort will require the use of classical as well as recent developments in machine learning and in particular recurrent neural networks, deep generative models, manifold learning, and social network analysis. ??

While previous experience in theoretical and applied machine learning would be ideal, we welcome applicants with significant experience in related fields including information theory, statistical signal

processing, sparse signal or image processing, compressive sensing, and distributed convex optimization. ??

Interested applicants should send a cover letter detailing their research interests and career goals, CV, and names and contact information of 3 references to Dr. Shuchin Aeron (shuchin at ece.tufts.edu). ??

Useful Links: ??

- * Prof. Shuchin Aeron: <http://www.ece.tufts.edu/~shuchin/> ?
- * Prof. Michael C. Hughes: <https://www.michaelchughes.com/> ?
- * Prof. Eric Miller: <http://www.ece.tufts.edu/~elmiller/elmhome/> ?
- * Tufts Center for Applied Brain and Cognitive Sciences: <https://engineering.tufts.edu/departments/cabcs>

Submitted by: Eric L. Miller
Professor and Chair, Electrical and Computer Engineering
Adjunct Professor of Computer Science
Adjunct Professor of Biomedical Engineering
Email: eric.miller@tufts.edu
Web: <http://www.ece.tufts.edu/~elmiller/elmhome/>
Phone: 617.627.0835 FAX: 617.627.3220
Ground: Halligan Hall Room 101A, 161 College Ave.
Medford Ma, 02155

From: Youzuo Lin ylin@lanl.gov?(via NADIGEST)
Subject: Postdoc Position, Deep Learning for Computational Imaging, LANL
Date: July 30, 2019???

We have an immediate opening for a creative and resourceful postdoctoral researcher with strong computational skills and experience in imaging inverse problems and deep learning methods. We are seeking a highly-motivated individual to join a multidisciplinary research team consisting of machine learning scientists, computational scientists and domain experts to conduct cutting-edge machine learning research for computational imaging, with application to the subsurface, material and other scientific domains.??

Minimum Job Requirements:

- ?- Strong computational science and numerical optimization skills, in particular, computational imaging and inverse problems
- ?- Strong deep learning skills and practical experience in various neural network architectures (DNN, CNN, RNN/LSTM, GAN or other auto encoder)
- ?- Practical experience with machine learning packages such as PyTorch, TensorFlow, Keras, etc.
- ?- Code development and computational experience in using high-performance parallel computing resources
- ?- Solid publication record in high-impact journals, top-tier machine learning, and related conferences
- ?- Excellent communication, writing, and oral presentation skills, and
- ?- Strong programming skills, in Python in particular.??

Desired Skills:

- ?- Demonstrated ability to work creatively and independently and in a team environment.
- ?- Ability to obtain DOE Q clearance.??

Education: A Ph.D. in Computer Sciences, Applied Math, Computational Sciences, Electrical Engineering or closely related field

is required. The candidate must have completed all Ph.D. requirements by commencement of the appointment and be within 5 years of completion of the Ph.D.?

To apply, please search for IRC75107 under jobs.lanl.gov?

Additional information about this position can be obtained by contacting Dr. Youzuo Lin (ylin@lanl.gov) and Dr. Brent Wohlberg (brendt@lanl.gov).

From: "noreply@degruyter.com" <noreply@degruyter.com>
Subject: Contents, 'Journal of Inverse and Ill-posed Problems'
Date: Thursday, August 1, 2019

Journal of Inverse and Ill-posed Problems August 2019 Volume 27,
Issue 4

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Numerical solution of a source identification problem: Almost coercivity?
Ashyralyev, Allaberden / Erdogan, Abdullah Said / Sazaklioglu, Ali Ugur

Invertibility and stability for a generic class of radon transforms with application to dynamic operators?
RabieniaHaratbar, Siamak

A class of homotopy with regularization for nonlinear ill-posed problems in Hilbert space?
Liu, Minghui / Ma, Fuming

Inverse nodal problems for integro-differential operators with a constant delay?
Sat, Murat / Shieh, Chung Tsun

Unique continuation for a reaction-diffusion system with cross diffusion?
Wu, Bin / Gao, Ying / Wang, Zewen / Chen, Qun

On solenoidal-injective and injective ray transforms of tensor fields on surfaces?
Krishnan, Venkateswaran P. / Mishra, Rohit K. / Monard, François

The Ivanov regularized Gauss-Newton method in Banach space with an a posteriori choice of the regularization radius?
Kaltenbacher, Barbara / Klassen, Andrej / Previatti de Souza, Mario Luiz

Identification of point sources in an elliptic equation from interior measurements: Application to a seawater intrusion problem?
El Badia, Abdellatif / El Hajj, Ahmad / Jazar, Mustapha / Moustafa, Hayat

Tikhonov regularization with ℓ_0 -term complementing a μ -convex penalty: ℓ_1 -convergence under sparsity constraints?
Wang, Wei / Lu, Shuai / Hofmann, Bernd / Cheng, Jin

On the travel time tomography problem in 3D?
Klibanov, Michael V.

<https://www.degruyter.com/view/j/jiip.2019.27.issue-4/issue-files/jiip.2019.27.issue-4.xml>

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

Today's Topics:

Workshop: Optimization and Inverse Problems in Electromagnetism (OIPE 2020)

Conference: Inverse Problems: Modelling and Simulation (IPMS 2020)

Conference: Inverse Problems in Engineering (ICIPE 20)

Conference: Electromagnetic Field Computation (CEFC 2020), Deadline

Extended

Postdoc: Multi-modality Imaging, Bath, UK

Postdocs: Remote Sensing and Machine Learning, Cambridge, UK

Table of Contents: Inverse Problems

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: OIPE 2020 <oipe2020@zut.edu.pl>
Subject: OIPE 2020
Date: Saturday, September 14, 2019

Dear colleagues,???

It is with great pleasure that we announce that the 16th Workshop on Optimization and Inverse Problems in Electromagnetism, OIPE 2020, will be held on September 14th-16th, 2020, in Szczecin, Poland.??

The workshop will be organized by the Faculty of Electrical Engineering of West Pomeranian University of Technology, Szczecin.??

Before the workshop, on September 13th, 2020, a one-day doctoral course on inverse problems is planned to organize.??

We invite members of the scientific community in universities, research centers and industry to attend the workshop and present their recent achievements. Abstract submission deadline will be April 30th, 2020. The first call of abstract submission will be available on the conference website.??

More information about the workshop can be found on <http://oipe2020.zut.edu.pl> ??

We look forward to meet all of you in Szczecin at OIPE 2020.???

Jens Haueisen (Chairman), Germany

Marcin Ziolkowski, 16th Workshop Chairman??

From: Todd Quinto <Todd.Quinto@tufts.edu>
Subject: Inverse Problems Modeling and Simulation, 5/24-30, 2020
Date: Sunday, September 15, 2019

Dear Colleagues,

The Tenth International Conference "Inverse Problems: Modelling and Simulation" (IPMS 2020) will be held May 24-30, 2020 at the Congress Center of the Paradise Bay Hotel, Mellieha, Malta. The IPMS conference series is one of the main scientific meetings of the field, and it has been organized every two years since 2002. The Conference IPMS 2020 is the tenth (Jubilee) in the series. The meeting is multidisciplinary and international, bringing together scientists working on a range of inverse problems in diverse areas. An important goal of the IPMS conferences is to encourage the participation of young researchers by offering them the opportunity to deliver invited talks and by partially supporting them. We look forward to welcoming you to Malta.

For more information, including minisymposia and plenary talks, registration, and housing, please visit

<http://www.ipms-conference.org/ipms2020/index.php>

Sincerely,

The organizers: Alemdar Hasanov Hasanoglu, Chair; Roman Novikov, Eric Todd Quinto, Otmar Scherzer, Cristiana Sebu, Cochairs

From: Filippo De Monte <filippo.demonte@univaq.it>?
Subject: ICIPE 20, call-for-papers: abstract deadline October 15
Date: Sunday, September 15, 2019

Dear Colleagues,

We cordially invite you to attend the "10th International Conference on Inverse Problems in Engineering (ICIPE 20)" that will be held on May 18-21, 2020, in Francavilla al Mare (Chieti), Italy.

Papers are solicited in all areas of applied inverse analysis. Past conferences have been noteworthy for their balanced focus on theory and applications, as well as an atmosphere that encourages collaboration and interaction between mathematical theorists who develop inverse analysis tools, and engineers who use these tools to solve today's problems.

The 10th ICIPE is in honor of Professor James V. Beck, in recognition of his seminal contributions to parameter estimation and inverse heat transfer analysis.

Conference flyer: <http://icipe20.univaq.it/icipe2020/wp-content/uploads/2019/09/ICIPE-2020-Flyer-2.pdf>

The conference website is: <http://icipe20.univaq.it>, and a conference flyer is attached to this email. One-page abstracts are due on October 15, 2019.

We would be grateful if you could disseminate this call-for-papers email and conference flyer to your colleagues.

We are looking forward to hosting you in Francavilla al Mare, Italy!

Sincerely,

Filippo de Monte (University of L'Aquila, Italy), Conference Chair? ?
Keith A. Woodbury (University of Alabama, USA), ICIPE Steering Committee? ?
Kirk Dolan (Michigan State University, USA), IPS Steering Committee

Website: <http://icipe20.univaq.it/wordpress/>

From: CEFC info <info@cefc2020.org>
Subject: [CEFC 2020] CEFC 2020, Pisa - Italy, Deadline Extension
Date: Monday, September 16, 2019

CEFC 2020, April 19-22, 2020 - Pisa, Italy

Dear colleague,

we are pleased to inform you that the submission deadline for the 19th Biennial IEEE Conference on Electromagnetic Field Computation (CEFC 2020) has been postponed, and it is now October 7th, 2019.??

The submission deadline is relative to a one-page digest, and the authors of accepted submissions will be entitled of submitting a four-pages extended version that will be considered for publication in the IEEE Transactions on Magnetics (following the standard IEEE Magnetics Society peer review process). ??

The conference will be held in wonderful Pisa, Tuscany, Italy, in April 19 - 22, 2020.??

You can find all the upcoming news, guidelines and many more useful info at the conference website www.cefc2020.org.??

We are all looking forward to meeting you in Pisa??

CEFC 2020 organising committee.

www.cefc2020.org
info@cefc2020.org

From: Matthias Ehrhardt <me549@bath.ac.uk>
Subject: PostDoc on multi-modality imaging @Bath, UK
Date: Monday, September 2, 2019

A position exists for a Research Associate to work on the development of image fusion algorithms for multi-modality imaging.

This post is part of a project sponsored by the Faraday Institute in the context of developing next generation batteries. The multi-disciplinary network (mathematicians, chemists, physicists, engineers) includes researchers from Liverpool, Manchester, Birmingham, Bath, UCL, Warwick and Diamond Light Source.

The successful candidate will have, or will be nearing the completion of, a PhD degree in mathematics or a closely related subject. Expertise in either inverse problems, imaging/image processing or machine learning is desired. Prior knowledge in image fusion or multi-modality imaging is not required.

The post carries no teaching or administrative duties. There are generous funds available under the project for attending conferences and conducting research visits.

This post is fixed-term for up to 15 months, starting as soon as possible by mutual agreement. Skype interviews are expected to be held on 9 October 2019. Informal enquiries about the role can be made to Dr Matthias Ehrhardt (M.Ehrhardt@bath.ac.uk), however, please ensure that your application is submitted via the University website <https://www.bath.ac.uk/jobs/Vacancy.aspx?ref=CC7058>.

Submitted by: Matthias J Ehrhardt, PhD, Prize Fellow
Institute for Mathematical Innovation, University of Bath, UK
<https://mehrhardt.github.io>

From: Carola-Bibiane Schönlieb <cbs31@cam.ac.uk>
Subject: Research associate positions in Cambridge
Date: Tuesday, September 17, 2019

Dear All,??

I would be glad if you could bring the PostDoc positions below to the attention of suitable candidates. Closing date for applications is the 15th of October. More details can be found here: <http://www.jobs.cam.ac.uk/job/23113/> and some info also below.??

Thank you! and all the best,?
Carola Schönlieb???

Research Associates in Remote Sensing and Machine Learning (Two posts - Fixed Term) <http://www.jobs.cam.ac.uk/job/23113/>

Two positions exist for Post-Doctoral Research Associates to work on the development of novel machine learning and image analysis techniques within the EPSRC project Robust and Efficient Analysis Approaches of Remote Imagery for Assessing Population and Forest Health in India. The candidates will be based at the Department of Applied Mathematics and Theoretical Physics (DAMTP) of the University of Cambridge, and will be a member of the Cambridge Image Analysis group. ??

The project is a collaboration between DAMTP, the Department of Plant Sciences, and the Centre for Diet and Activity Research (CEDAR) at the University of Cambridge, and the IIT Delhi and industrial partners in India. The role of these positions will be to design and implement novel, cutting-edge analysis methods for large-scale remotely sensed data from the ground and from satellites, to benefit policy making in climate change, healthcare and environment conservation in India. This is an exceptional opportunity to conduct ambitious research, whilst collaborating with an international team for designing novel developments in machine learning for remote sensing data. For more information, please see the Further Particulars.??

We are looking for two excellent and ambitious postdoctoral researchers who want to join this research endeavour. ??

Duties will include developing and conducting individual and collaborative research objectives, proposals and projects. The role holders will be expected to plan and manage their own research and administration, with guidance if required, and to assist in the preparation of proposals and applications to external bodies. You must be able to communicate material of a technical nature and be able to build internal and external contacts. You may be asked to assist in the supervision of student projects, the development of student research

skills, provide instruction or plan/deliver seminars relating to the research area.??

The successful candidates will have:

?

- ?• A PhD degree in Applied Mathematics, Computer Science or Engineering.
- ?• Experience in the development and application of machine learning for big data (experience with remote sensing data is a strong plus).
- ?• Substantial experience in programming languages e.g. Python, C, R or MATLAB.
- ?• Strong communication skills, team player and organisation skills.??

The posts carry no teaching or administrative duties. There are generous funds available under the project for attending conferences and conducting research visits.??

Fixed-term: The funds for this post are available for 18 months in the first instance. Start date: 1 November 2019 or by mutual agreement.

Interview date: as soon as possible after the closing date. ??

Click the 'Apply' button below [see <http://www.jobs.cam.ac.uk/job/23113/>] to register an account with our recruitment system (if you have not already) and apply online.??

On the online application form you should upload a full curriculum vitae and a description of your recent research (not to exceed three pages). ??

The contact details of two referees will be required; please ensure that your referees are aware that they may be contacted by the Mathematics HR Office Administrator to request that they upload a reference for you to our Web Recruitment System; and please encourage them to do so promptly. ??

Informal inquiries can be made by contacting LE20593@maths.cam.ac.uk and/or Prof. Carola-Bibiane Schönlieb (cbs31@cam.ac.uk).??

Please quote reference LE20593 on your application and in any correspondence about this vacancy.??

The University actively supports equality, diversity and inclusion and encourages applications from all sections of society. We particularly welcome applications from women and /or candidates from a BME background for this vacancy, as they are currently under-represented at this level in our Department.??

The University has a responsibility to ensure that all employees are eligible to live and work in the UK.

From: "noreply@iopscience.org" <noreply@iopscience.org>
Subject: Inverse Problems, Volume 35, Number 8, August 2019
Date: Thursday, August 29, 2019

Inverse Problems

August 2019

Volume 35, Number 08

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Special Issue Papers:

A Bayesian approach to improving the Born approximation for inverse scattering with high-contrast materials ?

J P Kaipio, T Huttunen, T Luostari, T Lähivaara and P B Monk

A nonconvex penalization algorithm with automatic choice of the regularization parameter in sparse imaging ?

D Lazzaro, E Loli Piccolomini and F Zama

External optimal control of nonlocal PDEs ?

Harbir Antil, Ratna Khatri and Mahamadi Warma

Direct quantitative photoacoustic tomography for realistic acoustic media ?

Ashkan Javaherian and Sean Holman

Solving inverse electromagnetic scattering problems via domain derivatives ?

Felix Hagemann, Tilo Arens, Timo Betcke and Frank Hettlich

Papers:

A graph space optimal transport distance as a generalization of L^p distances: application to a seismic imaging inverse problem ?

L Métivier, R Brossier, Q Mérigot and E Oudet

Direct and inverse scattering problems for a first-order system with energy-dependent potentials ?

T Aktosun and R Ercan

An inverse problem for the linear Boltzmann equation with a time-dependent coefficient ?

Mourad Bellassoued and Yosra Boughanja

An image reconstruction model regularized by edge-preserving diffusion and smoothing for limited-angle computed tomography ?

Jinqiu Xu, Yunsong Zhao, Hongwei Li and Peng Zhang

Detection of delayed target response in SAR ?

Mikhail Gilman and Semyon Tsynkov

Expectation propagation for Poisson data ?

Chen Zhang, Simon Arridge and Bangti Jin

Well posedness and convergence analysis of the ensemble Kalman inversion ?

Dirk Blömker, Claudia Schillings, Philipp Wacker and Simon Weissmann

<https://iopscience.iop.org/issue/0266-5611/35/8>

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

Today's Topics:

Deadline Extended: Int'l Conference on Inverse Problems in Engineering (ICIPE 20)
Announcement: Int'l Conference on Inverse Problems and Related Topics (ICIPRT-2020)
Minisymposia: Int'l Conf. on Inverse Problems: Modelling and Simulation (IPMS 2020)
CMI PhD Course: Mathematics of Information
Nominations: Eurasian Association on Inverse Problems (EAIP) Young Scientist Award
Postdoc/Asst Prof: Machine Learning, Data Science at UC Davis
Postdocs: Deep Learning for Inverse Problems at the University of Cambridge
TT Position: Computational Applied Statistics/Mathematics at Boise State
TT Position: Mathematics of Data Science at UC Davis
Table of Contents: Journal of Inverse and Ill-posed Problems
Table of Contents: Inverse Problems

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: ICIPE 20 <icipe20@strutture.univaq.it>
Subject: International Conference on Inverse Problems in Engineering (ICIPE 20), Abstract Deadline Extended October 31
Date: Wednesday, October 16?

International Conference on Inverse Problems in Engineering (ICIPE 20),
Abstract Deadline Extended October 31

Dear Colleagues,

Abstract Deadline Extended?

The deadline for submitting abstracts is extended until Oct. 31, 2019. Please submit your abstract as soon as possible.

Dedication?

The 10th International Conference on Inverse Problems in Engineering (ICIPE) will be held on May 18-21, 2020, in Francavilla al Mare (Chieti), Italy, in honor of Professor James V. Beck.

Scope?

Papers are welcome in all areas of inverse analysis, including: mathematical and statistical aspects of inverse problems; design of experiments; inverse heat transfer; inverse analysis of structures; parameter estimation and inference; optimal design of experiments; stochastic inverse analysis and Bayesian inference; non-destructive testing; medical and industrial tomography.

Keynote Speakers

- Prof. Ryszard A. Bialecki, Silesian University of Technology, Poland
- Prof. Kyle Daun, University of Waterloo, Canada
- Prof. Denis Maillet, University of Lorraine & CNRS, France
- Prof. Jun Zou, The Chinese University of Hong Kong, Hong Kong

Conference Website: <http://icipe20.univaq.it/wordpress/>

Special issues and notification

- Inverse Problems in Engineering and Science - notification
- Heat Transfer Engineering - special issue
- Journal of Verification, Validation, Uncertainty and Quantification (ASME) - special issue

We are looking forward to hosting you in Francavilla al Mare, Italy!??

Sincerely,?

Filippo de Monte (University of L'Aquila, Italy), Conference Chair?
 Keith A. Woodbury (University of Alabama, USA), ICIPE Steering Committee?
 Kirk Dolan (Michigan State University, USA), IPS Steering Committee

 From: zhangwl <zhangwl@sustech.edu.cn>
 Subject: The announcement of ICIPRT-2020 in SUSTech
 Date: Wednesday, October 23, 2019

It is a pleasure to announce the International Conference on Inverse Problems and Related Topics (ICIP2019), which will be held in Shenzhen (China) on Feb 21-24, 2020. This conference is dedicated to Professor Michael Klibanov on the occasion of his seventieth birthday.

The purpose of this international conference is to provide an interdisciplinary platform for researchers around the world to present and discuss the most recent innovations, trends, and challenges in the frontier areas of inverse problems and related topics. The conference topics include but not limited to inverse problems in mathematical physics, optimal control, numerical analysis of partial differential equations (PDEs) & stochastic PDEs, efficient and robust numerical schemes for solving complex problems. This conference has been organised in cooperation with the National Science Foundation (NSF) of China, the International Center of Mathematics (ICM) of SUSTech, the Department of Mathematics of SUSTech, and Guangdong Provincial Key Laboratory for Computational Science and Material Design of SUSTech.

Organizing Committee:

Xiaoming Wang, SUSTech
 Jingzhi Li, SUSTech
 Hongyu Liu, HKBU
 Fuming Ma, SUSTech

Last date for abstract submission: 15. 01. 2020

Journal of Inverse and Ill-Posed will publish a special issue dedicated to this conference and to the 70iest birthday of Professor Klibanov,

provided that truly good papers would cover about 150 pages of this journal.

For detailed information about this conference, for registration and for abstract submissions, please visit the following website:
<https://math.sustech.edu.cn/conference/11593.html>

Should you accept the invitation, please reply to zhangwl@sustech.edu.cn at your earliest convenience. Should you need any assistance for Chinese visa application, we will prepare formal invitation letters for you.

Best regards,

Wenlong Zhang

From: Todd Quinto <Todd.Quinto@tufts.edu>
Subject: Organize a minisymposia at Inverse Problems Modeling and Simulation, 5/24-30, 2020
Date: Sunday, October 27, 2019?

Dear Colleagues,

We would like to encourage you to consider organizing a minisymposium for The Tenth International Conference "Inverse Problems: Modelling and Simulation" (IPMS 2020), which will be held May 24-30, 2020 at the Congress Center of the Paradise Bay Hotel, Mellieħa, Malta. The IPMS conference series is one of the main scientific meetings in the field, and it has been organized every two years since 2002. The Conference IPMS 2020 is the tenth (jubilee conference) in the series and there will be a range of talks by top experts and up and coming researchers. The meeting is multidisciplinary and international, bringing together scientists working on a range of inverse problems in diverse areas.

Organizing a minisymposium is easy—you collect between 6 and 15 or so speakers with talk titles, if possible, and submit a short proposal with names to the organizing committee at ipmsconference@gmail.com by January 31, 2020. A proposal template is at <http://www.ipms-conference.org/ipms2020/images/ipms2020/Minisymposium-Proposal-sample-IPMS2020.doc>

For more information, including current minisymposia and plenary talks, registration, and housing, please visit

<http://www.ipms-conference.org/ipms2020/index.php>

Sincerely,

Todd Quinto
On behalf of the organizers: Alemdar Hasanov Hasanoglu, Chair; Roman Novikov, Otmar Scherzer, Cristiana Sebu, and myself, Cochairs

From: CMI Admin <cmi@maths.cam.ac.uk>
Subject: OPEN DAY 2019: PhD in Mathematics of Information
Date: Wednesday, October 16, 2019

Applications are sought for the CMI PhD course in Mathematics of Information and we are holding an open day on Tuesday 12 November.??

We encourage anyone interested in applying to the CMI PhD programme to come along to find out more.??

The event will be held at the Centre for Mathematical Sciences, University of Cambridge (Wilberforce Road, CB3 0WA).??

The provisional timetable is as follows;?

- 1.00 Registration and lunch?
- 2.00 Welcome and overview by CMI Directors?
- 2.20 - 3.20 Academic staff talks?
- 3.20 Break?
- 3.30 Q & A?
- 3.40 - 4.20 Student talks?
- 4.20 Tea and coffee with staff and students?
- 5.00 Close??

Please register in advance if you are planning to attend <https://forms.gle/zh6FkvcQvjXVUGfj8?>

To find out more, visit <http://www.maths.cam.ac.uk/cmi> or email cmi@maths.cam.ac.uk

Submitted by:

Tessa Blackman?

Faculty of Mathematics Graduate Office?

Centre for Mathematical Sciences, University of Cambridge?

www.maths.cam.ac.uk/cmi

From: Min Hadler <min.hadler@univie.ac.at>

Subject: Call Eurasian Association on Inverse Problems (EAIP) Young Scientist Award

Date: Wednesday, October 9, 2019

Nominations for the EAIP Young Scientist Award are open

The Eurasian Association on Inverse Problems (EAIP) Young Scientist Award is awarded to young scientists under the age of 40 at the time of the "Inverse Problems: Modeling and Simulation" conference, May, 24th - May, 30th, 2020 in Malta.

The EAIP Young Scientist Award recognizes outstanding achievements in inverse problems analysis and its applications.

Candidates for the awards may be nominated by their organizations as well as may apply themselves. Nomination materials (Cover Letter and CV including a complete list of publications) should be submitted via email to the Conference Secretariat (ipmsconference@gmail.com) with a CC to Otmar Scherzer (otmar.scherzer@univie.ac.at). The deadline for nominations is March, 23rd, 2020.

Submitted by:

Mag.a Min Hadler

Faculty of Mathematics

University of Vienna

Oskar-Morgenstern-Platz 1

A-1090 Vienna

T +43-1-4277-55771

E min.hadler@univie.ac.at

https://urldefense.proofpoint.com/v2/url?u=http-3A__www.csc.univie.ac.at&d=DwICaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=AIUQ5IsnQB7Hq0j83D24SZimIx95XHLzWkMeMlMaHiU&s=g5Tb4on5VRFvd3PNDFUIWGVJhKLCUCO2kIxa39exclo&e=

https://urldefense.proofpoint.com/v2/url?u=http-3A__mathematik.univie.ac.at_&d=DwICaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=AIUQ5IsnQB7Hq0j83D24SZimIx95XHLzWkMeMlMaHiU&s=xsm7I6dxnd7krfmBRFunxVPPzSvPL_6ik8yjp42tC-U&e=

From: Naoki Saito <saito@math.ucdavis.edu>
Subject: Arthur J. Krener Assistant Professor / UCD4IDS research postdoc position, UC Davis
Date: Monday, September 30, 2019

The Department of Mathematics at the University of California, Davis, and the UC Davis TETRAPODS Institute of Data Science (UCD4IDS), funded by the NSF HDR--TRIPODS grant, are soliciting applications for the Arthur J. Krener Assistant Professor / UCD4IDS research postdoc position starting July 1, 2020.

The Department and the Institute seek applicants who demonstrate promise and the capability of developing cutting edge?computational, mathematical, and/or statistical methodology pertaining to modern areas of data science that involve large and?complex data, as well as effective teaching skills. In particular, those candidates whose research interests are in the following three broad themes of the Institute are strongly encouraged to apply:

- 1) Fundamentals of machine learning directed toward biological and medical applications;?
 - 2) Optimization theory and algorithms for machine learning including numerical solvers for large-scale nontrivial learning problems;?
 - 3) High--dimensional data analysis on graphs and networks.
- Applicants are required to have completed their Ph.D. by the time of their appointment, but no earlier than July 1, 2016. The annual salary is \$70,100. Appointments are renewable for a total of up to three years, upon demonstration of satisfactory performance in research and teaching. The teaching load is 2 quarter-long courses for the first two years, and 4 quarter-long - courses for the final third year. Applications include: Cover Letter, CV, Research Statement, Teaching Statement, Letters of Reference including a letter which addresses teaching, and an optional Statement of Contributions to Diversity. Additional information about the department may be found at <http://www.math.ucdavis.edu>

Applications will be accepted until the position is filled. To guarantee full consideration, the application should be received by November 30, 2019. The application is available through UCRecruit at <https://recruit.ucdavis.edu/JPF03186/>

The University of California, Davis, is an affirmative action/equal opportunity employer with a strong institutional commitment to the achievement of diversity among its faculty and staff.

From: C.B. Schoenlieb <cbs31@cam.ac.uk>

Subject: Two PostDoc positions in deep learning for inverse problems available at the University of Cambridge
Date: Wednesday, October 16

Dear All,

We are currently advertising two Post-Doctoral Research positions in the Department of Applied Mathematics and Theoretical Physics to work on the development of image reconstruction and image analysis methods for a novel end-to-end pipeline for cancer imaging diagnosis and treatment planning, within the Wellcome Trust project 'All in one cancer imaging optimisation using an integrated mathematical and deep learning approach'. The successful candidates will be part of the Cambridge Image Analysis (CIA) Group.

This project is a collaborative project between mathematicians in Cambridge and the Alan Turing Institute, medical researchers and clinicians from Addenbrookes hospital and Siemens. The role of this position will be to design and implement novel, cutting-edge image reconstruction and image analysis methods for Computed Tomography, to develop an end-to-end pipeline for cancer imaging diagnosis and treatment planning. This is an exceptional opportunity to conduct ambitious research whilst collaborating with an international and interdisciplinary team for designing novel developments in machine learning and inverse problems for cancer imaging.

We are looking for two excellent and ambitious postdoctoral researchers who want to join this research endeavour. The successful candidates will have:

- a. A PhD degree in mathematics or a closely related subject;
- b. Experience in one or more of the following: inverse imaging problems, variational reconstruction approaches, deep learning and (bio-) medical imaging;
- c. Substantial experience in programming languages e.g. Python, C, R or MATLAB;
- d. Strong communication skills, team player and organisation skills.

The post carries no teaching or administrative duties. There are generous funds available under the project for attending conferences and conducting research visits.

Fixed-term: The funds for this post are available for 2 years in the first instance.

The application deadline is the 15th of November 2019.

More details can be found here: https://urldefense.proofpoint.com/v2/url?u=http-3A__www.jobs.cam.ac.uk_job_23464_&d=DwIFaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=9ihIsTDEpsdAAw04AdW050b8ofyyzk7F6mfDSvjxuA4&s=yo4avVcOm9zV_jEEDwT1GtE3RGAnDSBZ1t_WED2SY0o&e=

Informal inquiries can be made by contacting Prof Carola-Bibiane Schönlieb (LE20923@maths.cam.ac.uk).

Submitted by:
Carola-Bibiane Schoenlieb
DAMTP,
Centre for Mathematical Sciences,
Wilberforce Road,
Cambridge CB3 0WA,
United Kingdom.

email: c.b.schoenlieb@damtp.cam.ac.uk
web: https://urldefense.proofpoint.com/v2/url?u=http-3A_www.damtp.cam.ac.uk_user_cbs31&d=DwIFaQ&c=nE_W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=9ihIsTDEpsdAw04AdW050b8ofyyzk7F6mFDsvjxuA4&s=FNLf51Mu4YJIY7yJwSO-zYuOuXHBNGJyqLtJlXnKlBA&e=

From: Jodi Mead <jmead@boisestate.edu>
Subject: Assistant Prof., Computational Applied Statistics/Mathematics, Boise State
Date: Tuesday, October 1, 2019

The Department of Mathematics at Boise State University invites applications for a tenure-track position in computational applied statistics or mathematics at the rank of assistant professor starting in fall 2020. Applicants should have strong research potential in statistical computing, optimization, numerical linear algebra or related field with connections to data-driven applications.

Boise State's innovative transdisciplinary approach to research and education has driven its success as a metropolitan research university of distinction. Mathematics in particular leads data science efforts at both the undergraduate and graduate levels. Boise, Idaho is ranked by US News as the 4th safest city in the United States. It has a vibrant downtown, abundant recreational opportunities, pleasant weather, and the Milken Institute ranks it as the 12th best performing economy in the US.

If you are interested in this position, materials must be submitted electronically via <https://www.mathjobs.org> and Boise State's application system <https://tinyurl.com/y53qhmj9> by November 30th.

Submitted by:
Jodi Mead?
Professor, Department of Mathematics
co-Director, PhD in Computing
Associate Dean in Residence, Graduate College?
Boise State University
<http://math.boisestate.edu/~mead>

From: Naoki Saito <saito@math.ucdavis.edu>
Subject: Tenure-track position on the mathematics of data science at UC Davis
Date: Thursday, October 17, 2019

The Department of Mathematics at the University of California, Davis invites applications for one Assistant Professor (tenure-track) faculty position starting July 1, 2020. This position is in the area of the

mathematics of data science. Minimum qualifications for the position include a Ph.D. or its equivalent in the Mathematical Sciences or a related field and demonstrated potential for performance in teaching and research. The Ph.D. should be obtained by the beginning of Fall quarter. Duties include mathematical research, undergraduate and graduate teaching, and departmental, university and professional service.

Applications include: Cover Letter, CV, Research Statement, Teaching Statement, Letters of Reference and a Statement of Contributions to Diversity. Additional information about the Department may be found at <http://www.math.ucdavis.edu> .

Applications will be accepted until the position is filled. To guarantee full consideration, the application should be received by November 15, 2019. The application is available through UCRecruit @ <https://recruit.ucdavis.edu/JPF02958> .

The University of California, Davis, is an affirmative action/equal opportunity employer with a strong institutional commitment to the achievement of diversity among its faculty and staff.

From: "noreply@degruyter.com" <noreply@degruyter.com>
Subject: Contents, 'Journal of Inverse and Ill-posed Problems'
Date: Tuesday, October 1, 2019

Journal of Inverse and Ill-posed Problems October 2019 Volume
27, Issue 5

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<https://iopscience.iop.org/issue/0266-5611/35/10>
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Today's Editor: Patricia (Patti) K. Lamm, Michigan State University

Today's Topics:

PhD & Postdoc Positions: Uncertainty Quantification for Inverse Problems, DTU

Asst/Assoc Prof: Appl & Numerical Analysis, including Inverse Problems, Imperial College

Postdoc: Computer Vision/Machine Learning, including Inverse Problems, SZU

Postdoc/PhD Position: Inverse Problems in Damage Identification, TU Braunschweig

PhD Position: Deep Learning, including Inverse Problems, TU Braunschweig

Special Issue: Advances in Computational Integral Equations (ACOM)

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Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

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

From: Per Christian Hansen <pcha@dtu.dk>
Subject: PhD & Postdoc Positions, Uncertainty Quantification, DTU, Denmark
Date: Thursday, December 19, 2019

The Technical University of Denmark opens a 3-year PhD position and a 2-year postdoc position, both starting June 1, 2020 (or as soon as possible after that). The positions are part of the research project CUQI, Computational Uncertainty Quantification for Inverse Problems (<https://www.compute.dtu.dk/english/cuqi>).

These two positions deal with goal-oriented UQ where the objective is to perform UQ for a Quantity of Interest (QoI) defined on the solution to an inverse problem. Some challenges here are how to develop fast computational algorithms and how to compute the QoI directly from the data, if possible. These activities are done in collaboration with the Dept. of Mathematics, Virginia Tech, and candidates must spend some time there.

Both the PhD and the postdoc will be responsible for integrating goal-oriented UQ in a general computational platform for UQ for inverse problems. This involves a combination of theoretical considerations, development of computational methods and algorithms, and evaluation of results on selected inverse problems, e.g., sound source reconstruction, electrical impedance tomography, or image analysis.

For more details and to apply: <https://tiny.cc/CUQI-PhD-2> and <https://tiny.cc/CUQI-Postdoc-2>.

The applicants will work in a team of PhD students, postdocs and faculty members in the Section for Scientific Computing, and they must contribute with research towards the overall goals of the CUQI project. Applicants

are expected to give limited contributions to teaching and training activities as well as supervision of students.

Sincerely, Per Christian Hansen, Technical University of Denmark

From: Prof. Colin Cotter colin.cotter@imperial.ac.uk [via nadigest]
Subject: Assistant/Associate Professor Position, Applied/NA, Imperial College London
Date: December 12, 2019

The Department of Mathematics at Imperial College London (UK) has a position open in Applied and Numerical Analysis targetting a Lecturer (Assistant Professor in UK-speak) or Senior Lecturer (Associate Professor in UK-speak) hire. We particularly seek applications from researchers with expertise in control theory, optimization, uncertainty quantification, inverse problems, partial differential equations, numerical analysis of PDEs, machine learning, mathematics of data science, stochastic modelling and stochastic differential equations, as well as those with a track record of interdisciplinary research in the physical and social sciences, biology, engineering, and/or Data Science.

The application deadline is 15th January 2019.

For more information and to reach the application form, please use this link:

[https://urldefense.com/v3/__https://www.imperial.ac.uk/jobs/description/NAT00620/lecturersenior-lecturer-applied-and-__;!!HXCxUKc!hP8p2cVNIMObnb6Ugk5hCxoVNYgXAZt81o2TutgeXMAHujM7-dyQbaQkv304i21d\\$ numerical-analysis/](https://urldefense.com/v3/__https://www.imperial.ac.uk/jobs/description/NAT00620/lecturersenior-lecturer-applied-and-__;!!HXCxUKc!hP8p2cVNIMObnb6Ugk5hCxoVNYgXAZt81o2TutgeXMAHujM7-dyQbaQkv304i21d$ numerical-analysis/)

From: J. Lu jianlu1979@163.com [via nadigest]
Subject: Postdoc Position, Computer Vision/Machine Learning, SZU
Date: December 14, 2019

Job Type: Full-Time
Duration: 2 years
Number of Position: 2 positions

Salary: about 350,000 RMB (50,000 US dollars) per year, of which 180,000 RMB per year is after tax.

Closing Date: Open Until Filled

Requirements: no more than 35 years old and PhD degree within 3 years.

Description: We have projects that are looking for Postdoc in Computer Vision, Machine Learning, Image/Video/Signal Processing/Analysis, Mathematical Imaging, Optimization, Inverse Problems, etc.

We have no teaching tasks and Check-in/Check-out policy.

Promotors:

- Prof. Jian Lu (Shenzhen Key Laboratory of Advanced Machine Learning and Applications, Shenzhen University)
- Prof. Ke Chen (University of Liverpool)
- Prof. Lixin Shen (Syracuse University)
- Prof. Yiqiu Dong (Technical University of Denmark)

Those who are interested in Research Scientist please send their C.V. to Prof. Jian Lu,
Emails: jianlu1979@163.com, jianlu@szu.edu.cn

From: Dirk Lorenz d.lorenz@tu-braunschweig.de [via nadigest]
Subject: Postdoc/PhD Position, Inverse Problems, TU Braunschweig
Date: December 12, 2019

A three year research position is available at the Institute of Analysis and Algebra at the TU Braunschweig in the group of Prof. Lorenz. The preferred starting date is March, 2020 but later start is possible.

The successful candidate will work in the project 'Model-based damage analysis' within the Research Unit FOR3022 'Ultrasonic Monitoring of Fibre Metal Laminates Using Integrated Sensors' funded by the DFG. The project is concerned with the inverse problem of damage identification in fibre metal laminates by guided waves.

The position is suitable for a PhD student or a postdoc a strong background in numerical analysis is required, preferred numerical method for partial differential equations and knowledge in inverse problems is a plus.

The base salary for the position is according to 75% of the TVL E13 pay scale. A successful postdoctoral applicant will be offered an upgrade to a 100% position from other sources.

Equally qualified severely challenged persons will be given preference. The TU Braunschweig especially encourages women to apply for the position. Please send your application including CV, copies of certificates and letters of recommendation (if any) in electronic form via e-mail to Dirk Lorenz, d.lorenz@tu-braunschweig.de

Application deadline: 31.01.2020

From: Dirk Lorenz d.lorenz@tu-braunschweig.de [via nadigest]
Date: December 09, 2019
Subject: PhD Position, Deep Learning, TU Braunschweig

The group of Prof. Dirk Lorenz at the Institute of Analysis and Algebra has an open (possibly two, depending on grant approval) PhD position for a Scientific Assistant (75% TV-L EG13). The position is available from April 1, 2020 and is initially limited to three years.

The scientific focus of the group includes optimization, inverse problems, machine learning, and mathematical imaging. Besides teaching and research, the position includes work in projects or preparation of projects.

If you have a degree (Masters or Diploma) in mathematics (possibly computer science) above average, focus on optimization and/or numerical mathematics and applications, e.g. imaging or machine learning, have programming skills in MATLAB, Julia and/or Python, have good knowledge of German and/or English, have the capacity for teamwork and independent work, we look forward to your application. If you even have experience with the training of neural networks or even graph networks, it's even better.

Equally qualified severely challenged persons will be given preference. The TU Braunschweig especially encourages women to apply for the position. Please send your application including CV, copies of certificates and letters of recommendation (if any) in electronic form via e-mail to Dirk Lorenz, d.lorenz@tu-braunschweig.de.

From: Alex Barnett abarnett@flatironinstitute.org [via nadigest]
Date: December 13, 2019
Subject: CFP, ACOM special issue on integral equations, by Aug 2020

We invite submissions for the special issue (topical collection) "Advances in Computational Integral Equations" (ACIE), in the journal Advances in Computational Mathematics (ACOM).

Integral equation methods bring tremendous advantages for the numerical solution of a wide variety of PDEs in complex geometries. In recent years there have been tremendous advances in fast (iterative and direct) solvers, representations, and quadratures; yet, many challenges remain, and the research community is active and growing. This topical collection will summarize the state of the art, and is inspired by an upcoming BIRS workshop at Oaxaca (May 31, 2020). Submissions from the global research community and the workshop are welcome, and all will undergo ACOM's usual peer-review process.

Topics of interest include: boundary integral equations; singular geometries; randomized algorithms; high frequency; inverse problems; HPC; software packages; numerical analysis; time-domain...

The guest editorial board will be: Stephanie Chaillat, Adrianna Gillman, Gunnar Martinsson, Michael O'Neil (chair), Alex Barnett, Mary-Catherine Kropinski, and Timo Betcke.

The submission deadline is: August 31, 2020.

For details:

[https://urldefense.com/v3/__https://users.flatironinstitute.org/*ahb/notes/ACOM-ACIE-SI_announce.pdf__;fg!!HXCxUKc!hP8p2cVNIMObnb6Ugk5hCxoVNygXAZt81o2TutgeXMAHujM7-dyQbaQkvy_f4G40\\$](https://urldefense.com/v3/__https://users.flatironinstitute.org/*ahb/notes/ACOM-ACIE-SI_announce.pdf__;fg!!HXCxUKc!hP8p2cVNIMObnb6Ugk5hCxoVNygXAZt81o2TutgeXMAHujM7-dyQbaQkvy_f4G40$)

From: "noreply@degruyter.com" <noreply@degruyter.com>
Subject: Contents, 'Journal of Inverse and Ill-posed Problems'
Date: Tuesday, November 26, 2019

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<https://www.degruyter.com/view/j/jiip.2019.27.issue-6/issue-files/jiip.2019.27.issue-6.xml>

From: "noreply@iopscience.org" <noreply@iopscience.org>

Subject: Inverse Problems, Volume 36, Number 1, January 2020

Date: Tuesday, December 24, 2019

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Adaptive reconstruction for electrical impedance tomography with a piecewise constant conductivity

Bangti Jin and Yifeng Xu

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A new temporal control approach for SCAO systems ?
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M Burger, E Resmerita and M Benning

<https://iopscience.iop.org/issue/0266-5611/36/1>
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