Contents

IPNet Digest Volume 29, Number 01 January 24, 2022

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

Today's Topics:

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: ICAS <info@icas.cc>
Date: Friday, January 14, 2022
Subject: 1st CfP 2nd Int. Advanced Course & Symposium on AI & Neuroscience - ACAIN 2022, 19-22 Sept.

1st Call for Participation and Papers

#ACAIN2022, the 2nd International Advanced Course & Symposium on Artificial Intelligence & Neuroscience

September 19-22, 2022, Certosa di Pontignano, Tuscany, Italy
(https://www.lacertosadipontignano.com/en/)

ACAIN 2022, an Online & Onsite Event!

LECTURERS:

Ila Fiete, MIT, USA
Karl Friston, University College London, UK & Wellcome Trust Centre for Neuroimaging
Wulfram Gerstner, EPFL, Switzerland
Christopher Summerfield, Oxford University, UK
Max Erik Tegmark, MIT, USA & Future of Life Institute

More Lecturers and Speakers to be announced soon!

W: https://acain2022.artificial-intelligence-sas.org
E: acain@icas.cc
NEWS: https://acain2022.artificial-intelligence-sas.org/category/news/

Past Edition: https://acain2021.artificial-intelligence-sas.org

Early Registration (Course): by March 23 (AoE)
https://acain2022.artificial-intelligence-sas.org/registration/

Paper Submission (Symposium) : by Saturday April 23 (AoE)
https://acain2022.artificial-intelligence-sas.org/symposium-call-for-papers/
https://easychair.org/conferences/?conf=acain2022

See you in Tuscany !

ACAIN 2022 Organizing Committee.

W: https://acain2022.artificial-intelligence-sas.org
E: acain@icas.cc
Previous edition: https://acain2021.artificial-intelligence-sas.org

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From: International Symposium on Theoretical Electrical Engineering <istet@zut.edu.pl>
Date: Wednesday, January 19, 2022
Subject: XXI International Symposium on Theoretical Electrical Engineering, ISTET 2022, June 28th-30th, 2022

Dear colleagues and members of the scientific community,

It is with great pleasure to announce that the XXI International Symposium on Theoretical Electrical Engineering, ISTET 2022, will be held on June 28th-30th, 2022, in Szczecin, Poland. Due to the epidemiological situation of COVID-19, the Organizing Committee decided that the conference will be held online.

The 21st edition of ISTET conference will be organized by the Faculty of Electrical Engineering of the West Pomeranian University of Technology, Szczecin. The ISTET symposium series is devoted to research and education in theory and applications of electromagnetic fields, electrical and electronic circuits, signal processing, and the design and control of electromagnetic systems.

We invite members of the scientific community in universities, research centers, and industry to attend the conference and present their recent achievements. Abstract submission deadline will be April 30th, 2022. Authors of accepted and presented papers will be invited to submit a full paper that will be considered for publication in COMPEL journal.

The first call of abstract submission as well, as more information about the conference (information for authors, submission, and registration details) will be provided soon on the ISTET'22 webpage http://istet.zut.edu.pl/

We look forward to meeting all of you at the ISTET 2022.

Tomasz Chady (Chairman of the Organizing Committee)
Przemyslaw Lopato, (Vice-Chairman of the Organizing Committee)

From: "Betcke, Marta" <m.betcke@ucl.ac.uk>
Date: Wednesday, January 12, 2022

Subject: Research Fellowship in Artificial Intelligence for Imaging at UCL

Research Fellowship in Artificial Intelligence for Imaging at UCL

Application deadline: 21 February 2022

We would like to bring to your attention Research Fellowship in Artificial Intelligence for Imaging at the Department of Computer Science at UCL. The position is funded by Learned Exascale Computational Imaging (LEXCI) programme for the first two years with an option of subsequent employment as a staff scientist at UCL Advanced Research Computing (ARC) Centre.

The goal of LEXCI is to develop a new paradigm of exascale computational imaging, integrating hybrid model and data based approaches with uncertainty quantification at large scale and in distributed environments. During the project lifetime the team will focus on applications to imaging from observations of the next-generation of radio interferometric telescopes and imaging of neuronal pathways in the human brain through diffusion MRI.

LEXCI is driven by a multi-disciplinary team of experts in machine learning, statistics, applied mathematics, physics, high-performance computing, and software research engineering, led by Prof. Jason McEwen (UCL MSSL), Assoc. Prof. Marta Betcke (UCL CS), Rev. Dr Jeremy Yates (UCL CS), and Assoc. Prof. Marcelo Pereyra (Heriot-Watt University).

The successful candidate will be working with Dr Marta Betcke and focus in particular on numerical methods development and algorithmic challenges in the context of big data and large scale, distributed hybrid architectures. They will also collaborate with Research Software Engineers in LEXCI team on deployment on modern and future high-performance computing infrastructure and with application domain specialists on knowledge transfer (astronomy, medical imaging and beyond).

This post is available to start as soon as possible but not later than September 2022 and is funded for 24 months in the first instance with the option of transitioning to an open-ended appointment as a staff scientist within UCL Advanced Research Computing (ARC) Centre at the end of this period, subject to satisfactory performance evaluation.

Please direct informal enquiries at Marta Betcke (m.betcke@ucl.ac.uk).

Further information and the application link (submission deadline 21 February 2022) are available at

https://atsv7.wcn.co.uk/search_engine/jobs.cgi?SID=amNvZGU9MTg4MTE3MCZ2dF90ZW1wbGF0ZT05NjUmb3duZXI9NTA0MTE3OCZvd25lcnR5cGU9ZmFpciZicmFuZF9pZD0wJmpvYl9yZWZfY29kZT0xODgxMTcwJnBvc3RpbmdfY29kZT0yMjQ=

Submitted by: Dr Marta M. Betcke, Associate Professor
Dept. Computer Science, University College London 9, 0 High Holborn, WC1V 6LJ London, UK
Email: m.betcke@ucl.ac.uk Tel: +44 (0)20 3549 5568 (Direct Dial)

From: "Prof. Roderick Melnik" <rmelnik@wlu.ca>
Date: Monday, January 17, 2022
Subject: Postdoc Position, M3AI Lab/MS2Discovery, WLU in Waterloo, Canada

Postdoc Position, M3AI Lab/MS2Discovery, WLU in Waterloo, Canada

Applications are invited for a Postdoctoral Position in Modeling for Complex Systems, with a focus on data-dependent methods and application areas, including inverse problem approaches, highlighted on the webpage given below. The successful candidate will be part of the research program in mathematical modeling and computational & data sciences at the Laurier M3AI Lab and MS2Discovery Institute in Waterloo, Canada. Further information about the position and how to apply can be found at the following website:

http://m2netlab.wlu.ca/research/current-openings.html

The position is available from March 1, 2022, and will start at the mutually agreed date, but no later than September 1, 2022. The review of applications will begin immediately and continue until the position is filled.

Submitted by:
Prof Dr Roderick Melnik,
Tier I Canada Research Chair in Mathematical Modelling,
M3AI @ MS2Discovery Interdisciplinary Research Institute,
Board of Directors | Founding Director |
WLU, 75 University Avenue West, Waterloo, ON, Canada, N2L 3C5 |
https://researchcentres.wlu.ca/ms2discovery-interdisciplinary-research-institute/
| Institute | http://www.m3ai.wlu.ca | Lab | Mind - Mathematical Models - AI |

From: Bangti Jin bangti.jin@gmail.com (via NA-Digest)
Date: January 21, 2022
Subject: Postdoc Position, CUHK, Hong Kong

The Department of Mathematics, The Chinese University of Hong Kong invites the application for one postdoc position in applied and computational mathematics, to work with Prof. Bangti Jin, in the following areas: inverse problems, numerical analysis and machine learning. Candidates must have obtained a PhD preceding the start date of appointment in Mathematics, Applied Mathematics, Computer Science, Statistics, or related fields, and have a strong background and track record of accomplishment in inverse problems, numerical analysis or machine learning. The review of applications will start on February 5, 2022, and will continue until the position is filled. Early application is strongly encouraged.

Further details of the position and the application procedure can be found at the following link:
https://urldefense.com/v3/__https://sites.google.com/view/bangtijin/opening__;!!HXCxUKc!nAzOMrLWXqaTHzaUZk-Sh7lsnQXD-r9ZCq6BDsH5ewNBcL4f09h56UJmdS-y_ywT$

From: Daniel Lesnic <D.Lesnic@leeds.ac.uk>
Date: Wednesday, December 22, 2021
Subject: new book

A new book in inverse problems has been published.

Lesnic, D. (2021) Inverse Problems with Applications in Science and Engineering, CRC Press, Taylor & Francis Group, Abingdon, UK.

ISBN: 978-0-367-00198-8 (hardback), ISBN: 978-1-032-12538-1 (paper back), ISBN: 978-0-429-40062-9 (e-back). DOI: 10.201/9780429400629.

The book examines thoroughly some representative classes of inverse and improperly-posed problems for partial differential equations governing a wide range of physical phenomena. The natural practical applications arise in heat transfer, electrostatics, porous media, fluids and acoustics. Intended readers of the book include postgraduate students and post-doctoral fellows from qualitatively-oriented fields of mathematical sciences and engineering, as well as scientists and researchers from either academic and industrial settings, where inverse problems naturally occur.

Submitted by: Daniel Lesnic
Department of Applied Mathematics, University of Leeds, UK

From: noreply@iopscience.org
Date: January 17, 2022
Subject: Inverse Problems, Volume 38, Number 1, January 2022

Inverse Problems January 2022 Volume 38, Number 1
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Special Issue Article

Papers

Joint estimation of Robin coefficient and domain boundary for the Poisson problem
Ruanui Nicholson and Matti Niskanen

Determination of a spatial load in a damped Kirchhoff–Love plate equation from final time measured data
D Anjuna, K Sakthivel and A Hasanov

https://iopscience.iop.org/issue/0266-5611/38/1

From: AIMS Updates <updates@aims-newsletter.org>
Date: Monday, January 24, 2022
Subject: New Issue IPI: Now Available Online

Inverse Problems & Imaging (IPI) February 2022 Vol. 16, No. 1
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Research Articles:

A stable non-iterative reconstruction algorithm for the acoustic inverse boundary value problem
Tianyu Yang and Yang Yang

Overcomplete representation in a hierarchical Bayesian framework
Monica Pragliola, Daniela Calvetti and Erkki Somersalo

Inverse problems for a half-order time-fractional diffusion equation in arbitrary dimension by Carleman estimates
Xinchi Huang and Atsushi Kawamoto

A mathematical approach towards THz tomography for non-destructive imaging
Simon Hubmer, Alexander Ploier, Ronny Ramlau, Peter Fosodeder and Sandrine van Frank

On numerical aspects of parameter identification for the Landau-Lifshitz-Gilbert equation in Magnetic Particle Imaging
Tram Thi Ngoc Nguyen and Anne Wald

https://www.aimsciences.org/journal/1930-8337
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IPNet Digest Volume 29, Number 02 January 26, 2022

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

Today's Topics:
LMS Invited Lecture Series: Mathematics of Deep Learning, Cambridge, UK

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: Marcello Carioni marcello.carioni.math@gmail.com
Date: Monday, January 24, 2022
Subject: LMS Invited Lecture Series on the Mathematics of Deep Learning Feb/Mar 2022

Dear Colleagues

We are happy to announce the London Mathematical Society Invited Lecture Series on the Mathematics of Deep Learning. The event will take place from 28 February to 4 March 2022 at the Isaac Newton Institute in Cambridge, UK in a hybrid format.

An introductory lecture series by Professor Gitta Kutyniok (LMU, Munich) on the Mathematics of Deep Learning is accompanied by a workshop on selected topics of deep learning with lectures given by Professors Peter Bartlett, Weinan E, Klaus Robert Müller and Rebecca Willet. There will be the opportunity for interactive sessions and the option to present a poster.

For more information about the programme please visit https://sites.google.com/view/lmslecturesmaths4dl/home. To register please follow the link in the event webpage https://gateway.newton.ac.uk/event/tgm109 and please do so by 31st January 2022 to secure your place.

We hope to be able to offer financial support for early-career researchers.
Best regards

Marcello Carioni
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IPNet Digest Volume 29, Number 03 February 20, 2022

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

Today's Topics:

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: Radha R <radharam@iitm.ac.in>
Date: Wednesday, February 16, 2022
Subject: Conference announcement

Dear Professor,
The conference
“Analysis, inverse problems and applications“
is postponed to July 18-21, 2022 due to strict covid rules in IIT Madras, Chennai.

Updated brochure:

https://math.iitm.ac.in/uploaded/Brochure-ICAIPA2022.pdf

Thanks and Regards
R.Radha

From: Robert Beinert mailto:robert.beinert@tu-berlin.de [via NADIGEST]
Date: February 11, 2022
Subject: GAMM Annual Meeting, Germany, Aug 2022

The GAMM 92nd Annual Meeting will be held at the RWTH Aachen University, Germany, August 15-19, 2022. The abstract submission for section S21 'Mathematical Signal and Image Processing' is now open. The topical speakers of the section are

- Kristian Bredies (University of Graz)
- Christoph Schnorr (University of Heidelberg)

Over the last decades mathematics has become the cornerstone in signal and image processing ranging from various methods for signal reconstruction to modelling of imaging modalities over its classical disciplines compression, denoising, segmentation, and registration to feature extraction. The used methodologies include such diverse fields

as harmonic analysis, inverse problems, variational analysis, mathematical statistics, partial differential equations, optimization, approximation theory and sampling theory.

The aim of this section is to gather scientists working on the theory and applications of mathematical signal and image processing in order to present their research, exchange ideas, and start new collaborations.

- Opening of online registration/abstract submission: February 1, 2022
- Closure of early online registration (Early fee): June 10, 2022
- Closure of online registration: July 31, 2022

Further information about the conference are available at https://urldefense.com/v3/__https://jahrestagung.gamm-ev.de__;!!HXCxUKc!hT7ZfwZ-RC1Q-nRea_i35TSD1LRbQ4fw-jgWXd9WqwfpQkCIN0PuwQuUeNgMvPNV$.

From: International Symposium on Theoretical Electrical Engineering <istet@zut.edu.pl>
Date: Friday, February 4, 2022
Subject: XXI International Symposium on Theoretical Electrical Engineering, ISTET 2022, June 28th-30th, 2022

Dear colleagues and members of the scientific community,

We are pleased to announce that the XXI International Symposium on Theoretical Electrical Engineering ISTET 2022 will be held on June 28th–30th , 2022 in Szczecin, Poland. Due to the epidemiological situation of COVID-19, the Organizing Committee decided that the conference would be HELD ONLINE.

The 21st edition of ISTET conference will be organized under the auspices of the Faculty of Electrical Engineering of the West Pomeranian University of Technology, Szczecin. The ISTET symposium series is devoted to research and education in theory and applications of electromagnetic fields, electrical and electronic circuits, signal processing, and the design and control of electromagnetic systems.

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

Important dates:

April 30th, 2022 – one-page abstract submission deadline
May 15th, 2022 – notification of acceptance
May 10th – 31st, 2022 – early bird registration
after May 31st, 2022 – late registration
June 28th – 30th, 2022 – ISTET 2022 conference
August 31st, 2022 – full papers submission deadline

The ISTET 2022 conference early bird registration fee is:

• 150 EUR - regular
• 100 EUR - student

The late registration fee is:

- 199 EUR - regular
- 149 EUR - student

Authors of accepted and presented papers will be invited to submit a full paper considered for publication in the COMPEL journal (IF= 0.755). The list of journals will be expanded.

More information about the conference (information for authors, submission, and registration details) will be provided soon on the ISTET'22 webpage http://istet.zut.edu.pl/

We look forward to meeting all of You at the ISTET 2022.

Tomasz Chady (Chairman of the Organizing Committee) Przemyslaw Lopato, (Vice-Chairman of the Organizing Committee)

From: Chrysoula Tsogka <ctsogka@ucmerced.edu>
Date: Monday, January 31, 2022
Subject: Postdoc Position in Inverse wave scattering and imaging problems, UC Merced

Dear All,

The group of Professor Tsogka invites applications for one Postdoctoral Research Associate position in Inverse wave scattering and imaging problems with an appointment beginning no later than Fall 2022. The successful candidate will work in Professor Tsogka's research group and will be part of the imaging and sensing SMaRT team in the Applied Mathematics department at UC Merced.

Further details, essential criteria, and details about how to apply can be found at :
https://aprecruit.ucmerced.edu/JPF01243

Thank you and please forward the email to anyone who may be interested,

Chrysoula Tsogka

From: Idoia Hernandez mailto:recruitment@bcamath.org [via NADIGEST]
Date: January 31, 2022
Subject: Postdoc Position, Deep Data-Driven Computing, BCAM

Basque Center for Applied Mathematics - BCAM is offering a
Postdoctoral position in the framework of Ikur strategy promoted by
the Education Department of the Basque Government to boost the
Scientific Research in specific strategical areas and to position them
at international level.

The selected candidate will work on solving Partial Differential
Equations (PDEs) and Inverse problems governed by PDEs using Deep
Learning (DL) techniques. He/she will develop methods for solving
these problems, implement them in Tensorflow and/or Pytorch, evaluate
the results, and publish them in top-ranked journals. Based on the
candidate's experience and skills, his/her scientific developments

will be more focused on his/her previous expertise.

He/she will be immersed in a group with experience on all these topics, as well as in specific industrial applications, mainly in the area of geophysics and renewable energies. Thus, the selected candidate will be assisted by other professors and postdoctoral fellows with experience in the area. He/she will work within a collaboration program between the Basque Center for Applied Mathematics (BCAM) and the technological center Tecnalia, also with the participation of other research centers and universities located within the Basque Country.

Contract: 12 months contract, with a possibility of renewal for 12 additional months based on performance and available funds; Deadline: 28 February 2022; Applications: https://urldefense.com/v3/__http://www.bcamath.org/en/research/job/ic2022-01-postdoctoral-fellowship-in-deep-data-driven-ikur__;!!HXCxUKc!hT7ZfwZ-RC1Q-nRea_i35TSD1LRbQ4fw-jgWXd9WqwfpQkCIN0PuwQuUeAPtsxBE$

Requirements: Applicants must have their PhD completed before the contract starts Skills: Good interpersonal skills. A proven track record in quality research, as evidenced by research publications in top scientific journals and conferences. Demonstrated ability to work independently and as part of a collaborative research team. Ability to present and publish research outcomes in spoken (talks) and written (papers) form. Ability to effectively communicate and present research ideas to researchers and stakeholders with different backgrounds. Fluency in spoken and written English

The preferred candidate will have: Strong background in the numerical solution of Partial Differential Equations and/or Deep Learning techniques. Background in Inverse Problems. Good programming skills in Python and preferably, also Tensorflow. Interest and disposition to work in interdisciplinary groups.
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IPNet Digest Volume 29, Number 04 March 20, 2022

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

Today's Topics:
PhD Position: UQ for PDE-Based Inverse Problems, DTU, Denmark
Postdocs: Models, Algorithms, Applications Including Learning Science, Tufts U.
Senior Scientist: Mathematical IT Support, Graz, Austria

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: Per Christian Hansen <pcha@dtu.dk>
Date: Saturday, February 26, 2022
Subject: PhD Position in UQ for PDE-Based Inverse Problems

PhD Position in UQ for PDE-Based Inverse Problems, DTU, Denmark

The Technical University of Denmark (DTU) has an opening for a 3-year PhD position. The position is part of the research project CUQI, Computational Uncertainty Quantification for Inverse problems (www.compute.dtu.dk/english/cuqi).

This position focuses on computational aspects of uncertainty quantification (UQ) for inverse problems formulated in terms of PDEs, with applications in, e.g., inverse scattering problems and problems in electrical impedance tomography. For such problems, standard sampling methods are computationally too expensive to work in practice, and therefore alternatives must be found, e.g., via direct inversion formulas or surrogate models. The goal of the project is to develop and evaluate numerical UQ tools and best practices suited to these inverse problems. The project relies on a combination of theory development and numerical computations. Experience with inverse problems or Bayesian inference will be a plus.

For more details and to apply: tinyurl.com/UQPHD

The applicant will work in a team of PhD students, postdocs and faculty members in the Section for Scientific Computing, and 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.

The deadline of applications is March 31, 2022 at 23:59 (Danish time).

Submitted by:
Professor Per Christian Hansen
Section for Scientific Computing

Department of Applied Mathematics and Computer Science
Technical University of Denmark
http://people.compute.dtu.dk/pcha/

From: "Miller, Eric L" <Eric.Miller@tufts.edu>
Date: Thursday, March 17, 2022
Subject: Postdoctoral Researcher Openings

Tufts University has openings for three post-doctoral researchers to engage in cross-cutting projects focusing on the development of “precision” models and algorithms with applications in learning science, nutrition, and medicine. These three domains are seeing an explosion in the types and quantities of information that can be collected to provide insight into various aspects of human physiology and psychology. Practitioners in these fields are eager to use these data to understand the dynamics of a wide variety of processes taking place both within and between people and make timely and accurate predictions at the scale of the individual. The characteristics of the data however render traditional analysis methods, largely concerned with population level statistics, inadequate. Many of these challenges arise from issues of heterogeneity. Some sources such as wearables provide data continuously. Others yield measurements at only a few discrete points in time (e.g., biomarkers derived from saliva samples) while audio and video are examples of data that may be provided in noncontiguous intervals of varying length. Most of these data are only indirectly related to the phenomena of interest with no explicit model linking the two as is the case for student work in the context of learning, electronic medical records for nutrition or medicine, or the results of questionnaires in all applications of interest. Finally, although the quantity of data collected about any one individual may be relatively large, practical considerations make the number of participants associated with most studies relatively small, on the order of tens at most making these simultaneously “big” and “small” data problems.

While learning, nutrition, and medicine each possess unique characteristics, the common challenges just described strongly suggest that an integrated approach to “precision analytics” will provide a fruitful path forward. Thus, we are looking for three PhD-level scientists with interests in pioneering rigorous and at the same time useful solutions to the problems outlined above. Each researcher will lead the effort in a specific domain, and the group as a whole will work collaboratively to exploit underlying commonalities across the different disciplines. Successful candidates will have a PhD in a quantitative discipline such as applied mathematics, statistics, signal processing, machine learning, or physics with a track record of high-quality publications in relevant journals and peer reviewed conferences. We seek individuals who will advance the state of the art in machine learning, data science, artificial intelligence etc. in a manner that also support the research goals and interests of our application domain partners drawn from

- The Tufts Center for Applied Brain and Cognitive Sciences
- The Tufts Institute for Research on Learning and Instruction
- Jean Mayer USDA Human Nutrition Research Center on Aging
- The Stuart B. Levy Center for Integrated Management of Antimicrobial Resistance

For more information about this position, please email Prof. Eric Miller at eric.miller@tufts.edu. Interested candidates should provide Prof. Miller with a copy of their CV, list of references, cover letter, and copies of relevant articles, theses, technical reports etc.

Submitted by:
Eric L. Miller
Director, Tufts Institute for Artificial Intelligence
Professor of Electrical and Computer Engineering
Professor of Computer Science, Secondary Appointment
Professor of Mathematics, Secondary Appointment

Professor of Biomedical Engineering, Secondary Appointment

Contact:
email: eric.miller@tufts.edu
Phone: 617.627.0835
Office: Joyce Cummings Center, Room
616
Ground mail: Halligan Hall, 161 College Ave., Medford Ma, 02155

From: "Moser, Melanie (melanie.moser@uni-graz.at)" <melanie.moser@uni-graz.at>
Date: Wednesday, March 16, 2022
Subject: (Senior) Scientist for mathematical IT support, Graz, Austria

At the University of Graz, researchers and students work across a broad disciplinary spectrum to enlarge our knowledge, and find strategies to deal with challenges our society is confronted with and to shape tomorrow's world. The University of Graz is a place which combines high quality academic research and teaching, where achievement is rewarded, careers are promoted, and social diversity is encouraged – all within a modern, award-winning working environment. Our motto: We work for tomorrow. Join us!

The Institute of Mathematics and Scientific Computing is looking for a
(Senior) Scientist for mathematical IT support (m/f/d)
https://jobs.uni-graz.at/ausschreibung/en/?jh=5047taqi8ibch0ihcjrtdg2xh5imcg

40 hours a week
expected employment for the period of 6 years with an
objective agreement position to be filled as of now

Career objective: Permanent employment as Senior Scientist.

Your duties

- Contributions to the management and development of in-house mathematical and interdisciplinary research software including the required third-party software (e.g., establishing usability for students, researchers and external partners, involvement in documentation and scientific publications)
- Collaboration at the institute to meet software development demands in scientific projects (e.g., improvement of internal codes through profiling, analysis and optimization of algorithms with regard to complexity, data transfer and parallelization)
- Independent teaching in applied mathematics, e.g., in the field of data science
- Participation in organizational, administrative and data management tasks

Your Profile

- Doctoral degree in a mathematical, computer science or related field of study
- Advanced knowledge in the mathematical foundations of numerical algorithms and scientific computing
- Very good practical programming skills in C++ or Python
- Knowledge in modern programming languages, parallelization as well as the development of software packages, graphical user interfaces, web applications and interfaces to commercial software (desirable)

- Competencies in an additional related field of study in mathematics, computer science or in the natural sciences (desirable)
- Ability to integrate into the institute's research and application profile, and to establish connections to interdisciplinary cooperation partners as well as the Idea_Lab
- Ability to teach courses in applied mathematics
- Very good English language skills, ability to communicate in German language
- Ability to work in a team, to organize and to communicate

Our Offer

Classification
Salary scheme of the Universitäten-KV (University Collective Agreement): B1

Minimum Salary
The minimum salary as stated in the collective agreement and according to the classification scheme is EUR 4.061,50 gross/month (for full-time employment). This minimum salary may be higher due to previous employment periods eligible for inclusion and other earnings and remunerations.

We offer you a job with a lot of responsibility and variety. You can expect an enjoyable work climate, flexible work hours and numerous possibilities for further education and personal development. Take advantage of the chance to enter into a challenging work environment full of team spirit and enthusiasm for your job.

Application deadline: 06.04.2022

The University of Graz strives to increase the proportion of women in particular in management and faculty positions and therefore encourages qualified women to apply.

Especially with regard to academic staff, we welcome applications from persons with disabilities who meet the requirements of the advertised position.

Applicants with proof of COVID-19 vaccination will be given preference if equally qualified. For further information, please refer to our general application regulations. https://jobs.uni-graz.at/en/FAQ/

For further information or questions, please contact:

Kristian Bredies
kristian.bredies@uni-graz.at
03163805170

Please note that in order to comply with the applicable data protection regulations, we can only accept applications via our web-based applicant tool for this vacant position.
------ end -------

IPNet Digest Volume 29, Number 05 April 13, 2022

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

Today's Topics:

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: Martin Holler <martin.holler@uni-graz.at>
Date: March 21, 2022
Subject: Mathematical Signal and Image Processing at the GAMM 92nd Annual Meeting

Dear Colleagues,

The GAMM 92nd Annual Meeting will be held at the RWTH Aachen University, Germany, August 15-19, 2022. We are happy to invite you to submit an abstract for session S21 'Mathematical Signal and Image Processing' and to announce our topical speakers:

* Kristian Bredies (University of Graz)
* Christoph Schnörr (University of Heidelberg)

Over the last decades mathematics has become the cornerstone in signal and image processing ranging from various methods for signal reconstruction to modelling of imaging modalities over its classical disciplines compression, denoising, segmentation, and registration to feature extraction. The used methodologies include such diverse fields as harmonic analysis, inverse problems, variational analysis, mathematical statistics, partial differential equations, optimization, approximation theory and sampling theory.

The aim of this section is to gather scientists working on the theory and applications of mathematical signal and image processing in order to present their research, exchange ideas, and start new collaborations.

Important Dates:

* Opening of online registration and abstract submission: February 1, 2022

* Abstract submission deadline for talks: May 01, 2022

* Closure of early online registration (Early fee): June 10, 2022

* Closure of online registration: July 31, 2022

Further information about the conference are available at
https://urldefense.com/v3/__https://jahrestagung.gamm-ev.de__;!!HXCxUKc!gyKwjLnSUgJWuSj9t7Iodw8YtB9GGFkEb74pOai0VTWYdoASKtqLx9NNb4SUJz580LMaSuM$.

We are looking forward to welcoming you in Aachen.

All the best,

Martin and Robert

Robert Beinert
Technische Universität Berlin
Institut für Mathematik
robert.beinert@tu-berlin.de
https://urldefense.com/v3/__http://www.tu-berlin.de/?212421__;!!HXCxUKc!gyKwjLnSUgJWuSj9t7Iodw8YtB9GGFkEb74pOai0VTWYdoASKtqLx9NNb4SUJz58fu0f1xc$

Martin Holler
University of Graz
Institute of Mathematics and Scientific Computing
martin.holler@uni-graz.at
https://urldefense.com/v3/__http://imsc.uni-graz.at/hollerm__;!!HXCxUKc!gyKwjLnSUgJWuSj9t7Iodw8YtB9GGFkEb74pOai0VTWYdoASKtqLx9NNb4SUJz58ytySM28$

From: Per Christian Hansen <pcha@dtu.dk>
Date: Friday, March 25, 2022
Subject: Workshop: Imaging with Uncertainty Quantification (IUQ)

Workshop: Imaging with Uncertainty Quantification (IUQ)

September 27–29, 2022, Elsinore, Denmark

Imaging is everywhere in science and technology, and often there is a need for assessing the uncertainty of the reconstructions due to measurement noise, model errors, etc. We see an increasing interest in performing uncertainty quantification (UQ) for imaging applications, and for making such methods readily useful in applications.

This workshop aims at bringing together specialists in UQ for imaging, and we invite talks that cover various aspects related to the development of theory, methodology and software. We also welcome talks about interesting applications of UQ in imaging. The goal is to stimulate networking and collaboration between researchers and students in these areas.

Before the workshop, we arrange a 1-day short course devoted to the Python software CUQIpy that we are currently developing for modeling and computations related to UQ for imaging.

For more details about the workshop, and to register, go to the IUQ Workshop homepage. https://people.compute.dtu.dk/pcha/CUQI/IUQworkshop.html

The workshop and training course are part of the activities in the research project CUQI, Computational Uncertainty Quantification for Inverse problems, funded by The Villum Foundation.
https://www.compute.dtu.dk/english/cuqi
https://veluxfoundations.dk/en/forskning/teknisk-og-naturvidenskabelig-forskning

Per Christian Hansen, Technical University of Denmark

Submitted by:

Professor Per Christian Hansen
Villum Investigator
Section for Scientific Computing
DTU Compute - Technical University of Denmark
Tel +45 23.65.27.98
http://people.compute.dtu.dk/pcha/
CUQI project: https://www.compute.dtu.dk/cuqi

From: Pam Bye <Pam.Bye@ima.org.uk>
Date: Tuesday, March 22, 2022
Subject: Conference Listing

4th IMA Conference on the Mathematical Challenges of Big Data

19-20 September 2022 University of Oxford, hybrid

https://ima.org.uk/17625/4th-ima-conference on-the-mathematical-challenges-of-big-data/

Submitted by:
Pamela Bye
Conferences and Administration Officer
Institute of Mathematics and its Applications
Tel: 01702 354020

From: International Symposium on Theoretical Electrical Engineering <istet@zut.edu.pl>
Date: Thursday, April 7, 2022
Subject: ISTET 2022 Conference - abstract submission deadline is approaching

Dear colleagues and members of the scientific community,

We are pleased to announce that the XXI International Symposium on Theoretical Electrical Engineering ISTET 2022 will be held on June 28th–30th , 2022 in Szczecin, Poland. Due to the epidemiological situation of COVID-19, the Organizing Committee decided that the conference would be held online.

The 21st edition of ISTET conference will be organized under the auspices of the Faculty of Electrical Engineering of the West Pomeranian University of Technology, Szczecin. The ISTET

symposium series is devoted to research and education in theory and applications of electromagnetic fields, electrical and electronic circuits, signal processing, and the design and control of electromagnetic systems.

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

Abstract submission deadline is approaching.

Important dates:

April 30th, 2022 – one-page abstract submission deadline
May 15th, 2022 – notification of acceptance
May 10th – 31st, 2022 – early bird registration
after May 31st, 2022 – late registration
June 28th – 30th, 2022 – ISTET 2022 conference
August 31st, 2022 – full papers submission deadline

The ISTET 2022 conference early bird registration fee is:
- 150 EUR - regular
- 100 EUR - student

The late registration fee is:
- 199 EUR - regular
- 149 EUR - student

The authors are requested to prepare the one page short papers according to the recommendations presented in conference webpage. All information and the example (template) file for Microsoft Word are available in Short Paper Guidelines section https://istet.zut.edu.pl/EN/news/short-paper-guidelines.html

Authors of accepted and presented papers will be invited to submit a full paper considered for publication in the COMPEL journal (IF= 0.755).

For more information about the conference please refer to the ISTET 2022 webpage http://istet.zut.edu.pl/

We look forward to meeting all of You at the ISTET 2022.
Tomasz Chady (Chairman of the Organizing Committee) Przemyslaw Lopato, (Vice-Chairman of the Organizing Committee)

From: Rolf Clackdoyle <rolf.clackdoyle@univ-grenoble-alpes.fr>
Date: April 8, 2022
Subject: Mathematics Postdoc Fellowship Available; TIMC Laboratory, Grenoble, France

Field: Tomographic Reconstruction in SPECT / Reconstruction from Projections

Context: The ANR-funded project SPECT-Motion-eDCC is a collaborative research project between CREATIS (Lyon), TIMC (Grenoble), OHI(Ottawa), and LUMEN (Lyon). At TIMC, the main objective is to perform mathematical research on the question of range conditions (also known as data consistency conditions) for parallel

and divergent projections, including the constant-attenuation exponential model. Exponential data consistency conditions (eDCCs) are already known for parallel projections [1], but not for divergent projections such as those measured by pinhole SPECT scanners. The role of eDCCs in this context is to test consistency of measured scanner data, as a method of detecting and identifying patient motion, and of verifying that correct motion compensation has been achieved [2].

Tasks: Under the guidance of Drs. Rolf Clackdoyle and Laurent Desbat, the postdoc will perform mathematical research on range conditions for the exponential x-ray transform (both in parallel and divergent formulations), carry out numerical verifications with small and large scale examples, and develop suitable cost functions and optimization code to search for transformations of the projections that minimize data inconsistency. In addition, there will be close collaborations with the CREATIS team (Lyon) and the OHI team (Ottawa) on implementation aspects of the eDCCs for patient motion identification.

Qualifications and Requirements:
- PhD in applied mathematics, or in physics or engineering with familiarity with functional analysis (at least the level of an undergraduate mathematics degree).
- Some programming skills and experience in Python, Matlab, C++, or similar tools.
- Solid written and spoken English skills are absolutely required; French optional.
- Scientific interest in medical imaging; preference for candidates with a background in tomographic reconstruction theory using analytic and/or iterative methods.

Practical Information:
- Primary supervision: Rolf Clackdoyle
- Location: TIMC laboratory, Grenoble, France.
- Period: two years, starting date flexible but not before June 2022.
- Potential candidates are welcome to make initial informal contact via email: rolf.clackdoyle@univ-grenoble-alpes.fr
- To apply: see https://urldefense.com/v3/__https://bit.ly/3r1qiVO__;!!HXCxUKc!mt58wuXSfI9DlDiVOvmOiH28BYxhbrfyZw5Vyd8PRk483jREhCK-hvSbGlZBVv7YktesQCY$ (in English and in French)
- Application deadline: we will start processing applications on Tuesday April 26, 2022, but the position will remain open until filled.

References:
[1] V.Aguilar, P.Kuchment. “Range conditions for the multidimensional exponential x-ray transform.” Inv Prob 11:977-982, 1995

[2] R.G.Wells, R.Clackdoyle. Feasibility of attenuation map alignment in pinhole cardiac SPECT using exponential data consistency conditions. Med Phys 48:4955–4965, 2021.

From: Dörte Mindermann <doertec@uni-bremen.de>
Date: Tuesday, April 12, 2022
Subject: 10 PhD positions in the Research Training Group 2224,“π3: Parameter Identification – Analysis, Algorithms, Applications”

10 PhD positions in the Research Training Group 2224,“π3: Parameter Identification – Analysis, Algorithms, Applications”

This research training group at the University of Bremen, funded by the German Science Foundation DFG, invites applications for
10 PhD positions (A106/22)
German federal employee scale TV-L E13, 75% of a full position,
for 3 years, starting October 1st, 2022.

The employment is fixed-term and governed by the Act of Academic Fixed-Term Contract, §2 I (Wissenschaftszeitvertragsgesetz – WissZeitVG). Therefore, candidates may only be considered for appointment if they still have the respective qualification periods available in accordance with § 2 (1) WissZeitVG.

The RTG π3 offers:
– Collaborative research projects between mathematicians of the Center for Industrial Mathematics, mathematicians in analysis, topology and statistics, and applied scientists.
– Research topics including inverse problems, direct optimisation, mathematical data analysis.
– A multifaceted qualification programme in applied mathematics and scientific computing, including research stays at partner institutions abroad, summer schools, and training workshops.

Requirements for PhD candidates:
– M.Sc. or equivalent degree with excellent grades in math sciences or related fields.
– Experience in one of the research topics of this RTG.
– Skills in scientific computer programming.
– Industry or research internships are advantageous.
– Fluency in English.
– Applicants should enjoy working in an international and interdisciplinary team.
For detailed information please visit
http://www.math.uni-bremen.de/rtg-pi3/openpositions

The University of Bremen has received a number of awards for its gender and diversity policies and is particularly aiming to increase the number of female researchers. Gender equality will be given special emphasis within this research training group. Applications from female candidates, international applications and applications of academics with a migrant background are explicitly welcome. Disabled persons with the same professional and personal qualifications will be given preference.

Submitted by:
Doerte Mindermann
Zentrum für Technomathematik
Sekretariat Prof. Dr. Dr. h.c. Peter Maass
Fachbereich 3
MZH 2210
Bibliothekstr. 1
28359 Bremen
Tel.: 0421 – 218 – 63802
Fax.: 0421 – 218 – 98 - 63802
------ end -------

IPNet Digest Volume 29, Number 06 April 22, 2022

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

Today's Topics:
Invitation to Founding Assembly of the "Inverse Problems Int'l Association (IPIA)
RTG Postdoc: Imaging and Sensing Research Group at UC Merced

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: "Hohage, Thorsten" <hohage@math.uni-goettingen.de>
Date: Thursday, April 21, 2022
Subject: Invitation to the Founding Assembly of the “Inverse Problems International Association” (IPIA)

Dear colleagues:

After several smaller preparatory international discussion rounds, we would like to announce a virtual meeting with the aim to officially re-found the Inverse Problems International Association (IPIA) as a registered society with statutes and by-laws and seat in Göttingen, Germany. We invite you to participate in this founding assembly on

Tuesday, May 10, 2022 at
6:00 am PST
1:00 pm GMT
3:00 pm CET
9:00pm CST
10:00 pm JST

and become a founding member of IPIA. It is planned to elect an intermediate Executive Committee of 12 persons for at most one year that will be responsible for organizing the first regular, fully democratic elections.

Aims of IPIA:

* Support for organization of conferences (AIP, others?)

* Independent funding of prizes (Calderón, others?)

* Quality control for plenary speakers and prize recipients

* Representation of the field in the math / scientific community

* Democratic balance of interests between different scientific and regional subgroups

* Potential recipient of donations

* Maintain and possibly extend IPNet newsletter

Summary of the draft of the Statutes and By-Laws:

* Executive Committee (EC) consists of 12 members with a term of three years

* Election of EC: Candidates must supply written support by 10 Members. Each Member has 12 votes.

* 4 Officers (President, Vice-President, Secretary, Treasurer) are members of EC and elected by EC

* Limitations of terms: President and Vice-President cannot be re-elected. EC members may serve at most for two consecutive terms.

* EC may appoint advisory members who can participate in meetings, but have no votes.

* General Assembly decides on fundamental matters by yes-no-ballots. Must be convened upon written request by at least 1/10th of the Members.

* Small membership fee, e.g. 30 Euros: Amount and possible reductions to be decided on Founding Assembly

* EC announces deadlines for proposals for organization of AIP conferences and decides on proposals. Solicitation of alternative proposals admissible.

* EC announces deadline for nominations to Calderón prize and decides on prize committee.

These statutes and by-laws were adapted from those of the International Association of Mathematical Physics (IAMP). Please send suggestions for changes to ipia@gwdg.de at least one week before the Founding Assembly.

Registration to founding assembly:

If you want to participate at the founding assembly, please send an email to ipia@gwdg.de containing the following data:

* Full name (first, middle, last)
* Title
* Affiliation
* Address

You will then receive the access data. Please register by Monday, May 9, 10:00 am CET, otherwise participation cannot be guaranteed. The reason to proceed this way is to collect the data that must be submitted to the registry office in advance.

Please note: By sending such an email you accept the processing of your data in terms of data-protection law. Deletion of your data may be requested at any time by a further email to ipia@gwdg.de.

Further information:

The following documents can be found under the link
https://owncloud.gwdg.de/index.php/s/ilG7AfNkmSxiw4R :

* Preliminary agenda of the Founding Assembly
* Background information on the founding process and the proposed intermediate Executive Committee
* Minutes of discussion rounds on Dec. 21, 2021 and Jan. 27, 2022 preparing the Founding Assembly
* Statutes and by-laws, German translation of the Statutes to be submitted to registry office

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From: "Chrysoula Tsogka" <ctsogka@ucmerced.edu>
Subject: RTG Postdoc Applied Mathematics UC Merced
Date: April 19, 2022

Hello everyone,

Hope you all are doing great!

I am writing you to let you know that there is a postdoc opportunity (Fall 2022) here in the Applied Mathematics Department at the University of California, Merced. This is a bit late for a postdoc search, but in case you have a graduate student or postdoc looking for a postdoctoral position please forward this message to to them. There is one constraint in our search, since this is an NSF RTG postdoc position, the position is restricted to US Citizens and Permanent Residents;

The application link is:
https://urldefense.com/v3/__https://aprecruit.ucmerced.edu/JPF01192__;!!HXCxUKc!mfppS1C-fheKF2E7C34x3e711dxjwo2BcZE_GzyjuRrRp3OVedssdYR7Hczr53qDFCxuUlM$

The postdoc will work in the Imaging and Sensing research group, therefore training and research interest related to imaging, inverse problems, data science or optimization are desired.

If you have questions, please don't hesitate to contact me (ctsogka@ucmerced.edu).
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IPNet Digest Volume 29, Number 07 May 07, 2022

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

Today's Topics:
Deadline: Registration for Founding Assembly of the IPIA
PhDs, Postdocs: Applied Analysis, incl. Inverse Problems, U. of Genoa
Table of Contents: Inverse Problems

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

Information about IPNet:
https://ipnet.math.msu.edu/

REMINDER: The deadline for registration for participation in the Founding Assembly of the "Inverse Problems International Association" (IPIA) is Monday, May 9, 10:00 am CET.

Please see the following for more information:

From: "Hohage, Thorsten" <hohage@math.uni-goettingen.de>
Date: Thursday, April 21, 2022
Subject: Invitation to the Founding Assembly of the "Inverse Problems International Association" (IPIA)

Dear colleagues:

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* Title
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* Address

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Further information:

The following documents can be found under the link
https://owncloud.gwdg.de/index.php/s/ilG7AfNkmSxiw4R :

* Preliminary agenda of the Founding Assembly
* Background information on the founding process and the proposed intermediate Executive Committee
* Minutes of discussion rounds on Dec. 21, 2021 and Jan. 27, 2022 preparing the Founding Assembly
* Statutes and by-laws, German translation of the Statutes to be submitted to registry office

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From: Giovanni S Alberti <giovanni.alberti@unige.it>
Date: Thursday, April 28, 2022
Subject: PhD and Postdoc positions in Applied Analysis - University of Genoa

It is a pleasure to announce the call for one PhD student and one Postdoc in Applied Analysis at the University of Genoa, Italy. 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.

These positions will be funded by the ERC StG “Sample complexity for inverse problems in PDE". The start of the positions is planned in Autumn 2022, and the duration of the contracts is 3 years. At this stage, perspective candidates are asked to complete an expression of interest.

For more details visit https://malga.unige.it/open-positions/, where you may find other PhD and postdoc positions on machine learning funded by Lorenzo Rosasco's ERC CoG “Efficient algorithms for sustainable machine learning”.

All the research activities will be carried out at MaLGa (https://malga.unige.it), the Machine Learning Genoa Centre. Today the center counts 14 faculties and around 40 PhD students/postdocs and provides a lively and dynamic work environment.

Please feel free to circulate this announcement.

Best wishes
Giovanni

Submitted by:
Giovanni S. Alberti
MaLGa, Machine Learning Genoa Center
Department of Mathematics
University of Genoa

From: noreply@iopscience.org
Date: May 7, 2022

Subject: Inverse Problems, Volume 37, Numbers 8, 11, 12

Inverse Problems August 2021 Volume 37, Number 8
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Special Issue Article:

Papers:

https://iopscience.iop.org/issue/0266-5611/37/8

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Inverse Problems November 2021 Volume 37, Number 11
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Papers:

https://iopscience.iop.org/issue/0266-5611/37/11

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Inverse Problems December 2021 Volume 37, Number 12
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Papers:

Reconstruction of a source domain from the Cauchy data: II. Three-dimensional case
Masaru Ikehata

Projection methods for high numerical aperture phase retrieval
Nguyen Hieu Thao, Oleg Soloviev, Russell Luke and Michel Verhaegen

Quantitative signal subspace imaging
Pedro González-Rodríguez, Arnold D Kim and Chrysoula Tsogka

Stability for the Calderón's problem for a class of anisotropic conductivities via an ad hoc misfit functional
Sonia Foschiatti, Romina Gaburro and Eva Sincich

Approximation error method for imaging the human head by electrical impedance tomography*
V Candiani, N Hyvönen, J P Kaipio and V Kolehmainen

On the uniqueness of inverse problems for the reduced wave equation with unknown embedded obstacles
Jiaqing Yang, Meng Ding and Keji Liu

Regularization of the factorization method applied to diffuse optical tomography
Isaac Harris

Sound speed uncertainty in acousto-electric tomography
Bjørn Christian Skov Jensen and Kim Knudsen

An adjoint approach to identification in electromyography: modeling and first order optimality conditions
Tobias Sproll and Anton Schiela

Levenberg–Marquardt method for solving inverse problem of MRE based on the modified stationary Stokes system
Yu Jiang, Gen Nakamura and Kenji Shirota

https://iopscience.iop.org/issue/0266-5611/37/12
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IPNet Digest Volume 29, Number 08 May 22, 2022

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

Today's Topics:

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

https://ipnet.math.msu.edu/

From: "Zewde, Hewan A" <hewan.zewde@helsinki.fi>
Date: Tuesday, May 17, 2022
Subject: Inverse Problems conference at the University of Helsinki

My name is Hewan and I am the project coordinator of Finnish Centre of Excellence in Inverse and Imaging, at the University of Helsinki. We have an upcoming one week conference, scheduled between August 1, 2022 and August 5, 2022.

I am writing you to kindly ask if you could promote the conference to your subscribers in your circle. We would like to warmly welcome your subscribers to attend the conference in its entirety or in one or more of the days they wish to.

The conference "Inverse problems in analysis and geometry" will focus on recent progress in the mathematical theory of inverse problems and related methods in analysis and geometry. It will also celebrate the 70th birthday of Gunther Uhlmann, who is a leading expert in the field of inverse problems and former FiDiPro professor at the University of Helsinki.

This workshop aims to bring together some of the most prominent experts in the mathematical theory of inverse problems and closely related fields to present state- of-the-art results and address open problems. It will also provide a venue for promising young researchers to present their work, and to foster interaction between experts in different disciplines.

The conference is part of the activities of the Finnish Inverse Problems Society and of the Centre of Excellence in Inverse Modelling and Imaging. The organizers gratefully acknowledge support from the Federation of Finnish Learned Societies, the Finnish Academy of Science and Letters (Mathematics fund), Horizon 2020 under ERC CoG 770924, and the University of Helsinki.

You can find more information about the conference here.
https://www.helsinki.fi/en/conferences/inverse-problems-analysis-and-geometry#:~:text=The%20conference%20%22Inverse%20problems%20in,methods%20in%20analysis%20and%20geometry.

Please do let me know if there is any additional information you require from me.

Submitted by:
Hewan Zewde
Project coordinator
Finnish Centre of Excellence in Research of Sustainable Space (FORESAIL)
Finnish Centre of Excellence in Inverse Modelling and Imaging
Mob: +358 29 412 1665

From: "Jin, Bangti" <b.jin@ucl.ac.uk>
Date: Friday, May 13, 2022
Subject: PhD Position in Mathematics of Deep Learning, University College London, UK

The Department of Computer Science at University College London (UCL) is inviting applications for a fully funded 4-year PhD studentship (UK students only), under the supervision of Prof. Simon Arridge, supported by earmarked funding for The Mathematics for Deep Learning programme grant. The programme grant is a five year, EPSRC funded project between UCL, Cambridge, and University of Bath that aims to develop significant new mathematical, statistical and computational methods for understanding and progressing Deep Learning, with applications in medical imaging, inverse problems, scientific computing and meteorology.

The position is an opportunity to conduct cutting-edge research at the intersection of machine learning, scientific computing and inverse problems. The student will develop innovative mathematical and algorithmic techniques inspired by deep learning and training paradigms for solving forward and inverse problems modelled by partial differential equations at large scales. The PhD project will involve extensive implementation and testing for applications addressed by the programme consortium, and will work closely with other academic and industrial partners to ensure that translation to real applications will be realised.

The deadline for application is June 30, 2022. For enquiries about the project and its application please contact Dr. Bangti Jin (b.jin@ucl.ac.uk).

From: "Chen, Ke" <cmchenke@liverpool.ac.uk>
Date: Tuesday, May 17, 2022
Subject: 2 Lectureships in Mathematics for Healthcare at University of Liverpool

We are seeking to further expand our strong team in the the area of Mathematics for Healthcare through the appointment of two Permanent Lecturers. The post is in the Department of Mathematical Sciences, which is part of the School of Physical Sciences at the University of Liverpool. You should have a PhD in Mathematics and have an excellent track record in the area of Mathematics applied to Healthcare, including publications in internationally recognised journals and the ability to attract external research funding. You should have an enthusiasm for teaching diverse cohorts, and be interested in developing a research-connected curriculum. You will play a part in the development of the department through extending existing research networks within the University, and building new networks nationally and internationally. The School of Physical Sciences is an Athena SWAN Silver Award holder and is committed to encouraging, developing and supporting women in their research and academic careers. We are working to create an inclusive environment which values a diverse workforce and we recognise that many individuals value flexibility in their work/life balance. Therefore, this post may be taken up on a Part-Time (a minimum of 0.5 FTE) or Full-Time basis (including a Job Share). We strongly encourage applications from groups underrepresented within our workforce, in particular women.

Deadline: 23:30 on Tue 7 June

The University reserves the right to close the vacancy early if it is deemed that there have been enough applications received

Furher details from: http://tinyurl.com/4de4jxu2

From: Gabriele Steidl steidl@math.tu-berlin.de (via NA-Digest)
Date: May 09, 2022
Subject: Postdoc Position, TU Berlin

Research Assistant with a follow-up commitment - Entgeltgruppe 13 TV-L Berliner Hochschulen.
Faculty II - Institute of Mathematics; Reference number: II-285/22
For 4 years with a follow-up promise for a permanent position according to 110 Abs. 6 Berliner Hochschulgesetz (Berlin Higher Education Act)

Application deadline: 30. Juni 2022

The position is located in the Modeling, Numerics and Differential Equations group.

Job Description: Contribute to research and teaching in the field of applied analysis with experience in machine learning. In particular, the candidate should be experienced in one of the areas of Inverse problems, Harmonic Analysis, Mathematical image and data processing (including geometric/stochastic/variational aspects), Functional Analysis. Teaching responsibilities at the Department of Mathematics /4 SWS with full-time appointment).

Expected Qualifications: Successfully completed academic university degree (Master's, Diploma or equivalent) in Mathematics. Completed doctoral degree in mathematics of outstanding quality. In-depth knowledge in the above areas supported by publications in peer-reviewed journals. Initial teaching experience. Very good ability to work in a team.

A follow-up commitment will be agreed with the position holder in accordance with S110 Abs. 6 Berliner Hochschulgesetz. In the last year of employment, an evaluation of the criteria listed in the follow-up commitment will take place. If these criteria are fulfilled, a permanent employment contract as a research assistant at the Institute of Mathematics will be concluded after the fixed-term employment. In addition to active research at the Institute and a teaching load of 8 SWS, this includes the assumption of administrative tasks at the Institute of Mathematics, which will be agreed upon in the follow-up commitment.

Please send your application with the usual documents (in a PDF document, max. 5 MB) by e-mail to steidl@math.tu-berlin.de, quoting

the reference number: II-285/22

The job advertisement is also available on the Internet at:
https://urldefense.com/v3/__https://tub.stellenticket.de/de/offers/133547__;!!HXCxUKc!2lXTwTN4HgIJK6YPBinqbmqnYyHjQz6MIr9oOc5JMsi6JOi9Ff5eEIv4Ahv28aO7Ow0Ugij-PIzeN-t61AhP4OpHzg9ISb8dhtY$

From: noreply@iopscience.org
Date: May 21, 2022
Subject: Contents, Inverse Problems, Volumes 37-38

Inverse Problems July 2021 Volume 37, Number 7
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Papers:

https://iopscience.iop.org/issue/0266-5611/37/7

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Inverse Problems February 2022 Volume 38, Number 2

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Papers:

https://iopscience.iop.org/issue/0266-5611/38/2

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Inverse Problems April 2022 Volume 38, Number 4

Table of Contents

Papers:

Corrigendum:

https://iopscience.iop.org/issue/0266-5611/38/4

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IPNet Digest Volume 29, Number 09 June 16, 2022

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

Today's Topics:

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: "Hohage, Thorsten" <hohage@math.uni-goettingen.de>
Date: Friday, June 10, 2022
Subject: Symposium on Inverse Problems: From experimental data to models and back

Dear colleagues,
Registration is now open for the Symposium on Inverse Problems: From experimental data to models and back.

Time: September 19-21, 2022
Location: Potsdam, Germany
Deadline for abstract submissions: June 30, 2022
Website: https://www.uni-goettingen.de/en/654659.html

This symposium will be organized jointly by the German-speaking Inverse Problems Society (GIP) and the Collaborative Research Centers CRC 1294 in Potsdam and CRC 1456 in Göttingen. It will serve as annual meeting of GIP and be part of the newly established Potsdam DA Days.

The scope of this meeting includes all aspects of inverse problems. A particular focus will be the modelling, mathematical analysis, and numerical treatment of experimental data. Scientists at an early stage of the career (PhD students, postdocs) are particularly encouraged to participate.

We hope to see you in Potsdam this September!

Sincerely,
Thorsten Hohage

on behalf of the organizers Melina Freitag, Axel Munk, Ronny Ramlau, Sebastian Reich, Markus Reiß, and myself

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From: Roland Maier roland.maier@uni-jena.de [via NADIGEST]
Date: May 20, 2022
Subject: Uncertainty, Adaptivity and Machine Learning, Germany, Sep 2022

We are pleased to announce the Summer School "Uncertainty, Adaptivity, and Machine learning" to be held at the Augsburg University, Germany, September 12-14, 2022.

In this three-day event, Michael Feischl (TU Vienna), Elisabeth Ullmann (TU Munich), and Robert Scheichl (U Heidelberg) will present numerical methods for solving PDEs with a focus on optimal adaptive discretization using machine learning, numerical methods for PDEs with random inputs, and solving large-scale Bayesian inverse problems.

In addition to the thematic lectures, participants will have the opportunity to (shortly) present their own research and to network at a social event.

Registration is free. Note that travel reimbursement can be provided for some participants. For more details and information regarding registration, please visit:

https://urldefense.com/v3/__https://www.uni-augsburg.de/de/fakultaet/mntf/math/prof/numa/veranstaltungen/uam-school/__;!!HXCxUKc!xpx-ndLRm_D6vOFSWgJbZ2fM0XOAf0n3EvYg2MOP0Ona_0cz_KfUCSkPxVHtdTDmQ4a2c2Pq_3yUWDnyDCK8lMoFgQdeN4TnY4U$

From: "Mario Bertero" <mario.bertero@unige.it>
Date: June 1, 2022
Subject: book publication

The second edition of the book
"Introduction to Inverse Problems in Imaging"
has been recently published by CRC Press. The link to the book is here

https://urldefense.com/v3/__https://www.routledge.com/Introduction-to-Inverse-Problems-in-Imaging/Bertero-Boccacci-Mol/p/book/9780367470050__;!!HXCxUKc!y2zMmhjeAPXn9e8bgpIESfYUtDAkKKBxmbrYxiccVKu-Bl8lpvV1L3p6-gAPuNMcK49c91Ufhrwv_cmNDzpv6dveXm-2OoZN$

Thank you and best regards,
Mario

From: Yair Censor <yair@math.haifa.ac.il>
Date: Tuesday, June 7, 2022
Subject: Jonathan Barzilai

It is with great sadness that we announce the passing of
Prof. Jonathan Barzilai, in March 2022, after a battle with cancer.
Dr. Barzilai was born in Tel Aviv, Israel. He received his doctoral

degree in applied mathematics from the Israel Institute of Technology (Technion) in Haifa, Israel. Along with Jonathan Borwein, he developed the famous Barzilai- Borwein gradient method, widely recognized as a very significant contribution to nonlinear optimization. His passion for optimization research continued to his very last days, and throughout that time he made significant breakthroughs in algorithms with implications for such applications as AI training. His other passion was the related areas of measurement theory and decision theory and analysis. Dr. Barzilai published major papers on measurement and decision theory and developed a methodology, Preference Function Modelling (PFM), for measurement, evaluation, and decision making by a single decision maker or a group, based on more than twenty years of research into the mathematical foundations of the Analytic Hierarchy Process, utility theory, decision theory, measurement theory, and related fields. He challenged existing theories in these domains and very recently completed a book entitled Pure Economics (published posthumously) in which he points out the major flaws in these disciplines and offers corrections. The link to Jonathan's book is: https://scientificmetrics.com/pure-economics.html.

Dr. Barzilai held high ethical and intellectual standards, both for himself and others. He challenged convention and was ready to be unpopular in defense of his convictions. He was a teacher, guide, and mentor with a great sense of humor, offering invaluable advice and insights to those who were fortunate to know him. He leaves behind his loving wife Rachel, son Dan (Limor) and grandson Erez, along with members of his extended family.

The Dalhousie University memorial page for Jonathan is at: https://www.dal.ca/faculty/engineering/industrial/faculty-staff/our-faculty1/past-member-biographies/jonathan-barzilai.html.

Yair Censor and Henry Wolkowicz.

Submitted by:
Prof. Yair Censor, Dept. of Mathematics, Univ. of Haifa, Mt. Carmel, Haifa, Israel.
Homepage: http://math.haifa.ac.il/yair.
Google Scholar: https://scholar.google.com/citations?user=M68VX70AAAAJ&hl=en.
To learn more about the superiorization methodology go to: https://en.wikipedia.org/wiki/Superiorization and to: http://math.haifa.ac.il/yair/bib-superiorization-censor.html#top.
"Science is the solution of problems whose exact formulations are known only after they are solved".

From: "Moser, Melanie (melanie.moser@uni-graz.at)" <melanie.moser@uni-graz.at>
Date: Wednesday, May 25, 2022
Subject: University Assistant with doctorate, Graz, Austria

At the University of Graz, researchers and students work across a broad disciplinary spectrum to enlarge our knowledge, and find strategies to deal with challenges our society is confronted with and to shape tomorrow’s world. The University of Graz is a place which combines high quality academic research and teaching, where achievement is rewarded, careers are promoted, and social diversity is

encouraged – all within a modern, award-winning working environment. Our motto: We work for tomorrow. Join us!

The Institute of Mathematics and Scientific Computing is looking for a

University Assistant with doctorate (m/f/d)

https://jobs.uni-graz.at/ausschreibung/en/?jh=4835admw2kc0d4ax0iqs8h3nok3g91c

40 hours a week
fixed-term employment for 6 years*
position to be filled as of now

Your duties

- Research in the field of applied mathematics with emphasis on the analysis and the numerics of problems in mathematical image processing, inverse problems and data sciences
- Collaboration in interdisciplinary cooperation projects and third-party funded projects
- Independent teaching of courses in the field of applied mathematics, supervision of students and holding of examinations
- Participation in organizational and administrative matters

Your Profile

- Doctoral degree in a mathematical branch of study
- Solid knowledge of one of the following fields: mathematical methods in image processing, inverse problems, numerical algorithms for imaging and inverse problems
- Knowledge in one or more of the following fields: functional analysis, continuous mathematical optimization, regularization theory, parameter identification with partial differential equations, geometric measure theory, mathematical data science (desirable)
- Ability for integration into the institute's research profile and in particular into interdisciplinary cooperation projects
- Ability to teach in german language
- Capacity for teamwork, organizational talent and ability to communicate

Our Offer

Classification
Salary scheme of the Universitäten-KV (University Collective Agreement): B1

Minimum Salary
The minimum salary as stated in the collective agreement and according to the classification scheme is EUR 4.061,50 gross/month (for full-time employment). This minimum salary may be higher due to previous employment periods eligible for inclusion and other earnings and remunerations.

We offer you a job with a lot of responsibility and variety. You can expect an enjoyable work climate, flexible work hours and numerous possibilities for further education and personal development. Take advantage of the chance to enter into a challenging work environment full of team spirit and enthusiasm for your job.

Application deadline: 06.07.2022

The University of Graz strives to increase the proportion of women in particular in management and faculty positions and therefore encourages qualified women to apply.

Especially with regard to academic staff, we welcome applications from persons with disabilities who meet the requirements of the advertised position.

Applicants with proof of COVID-19 vaccination will be given preference if equally qualified. For further information, please refer to our general application regulations. https://jobs.uni-graz.at/en/FAQ/

* Please note the limitations of § 109 UG (university act), especially in the case of short contract terms. For further information, please refer to our general application regulations. https://jobs.uni-graz.at/en/FAQ/

For further information or questions, please contact:

Iva Matijevic
iva.matijevic@uni-graz.at
+43 316 / 380 - 1196

Please note that in order to comply with the applicable data protection regulations, we can only accept applications via our web-based applicant tool for this vacant position.

From: Marcello Carioni <marcello.carioni.math@gmail.com>
Date: Saturday, June 4, 2022
Subject: PhD Position in infinite-dimensional optimization for theoretical machine learning, University of Twente, The Netherlands

We are looking for a talented, research-oriented PhD candidate to join the project "Regularized dynamics in optimization schemes for neural networks-based models" at University of Twente. We offer a full-time position for four years in an active and stimulating research environment, bridging applied and pure mathematics.

The PhD candidate will work under the supervision of Dr. Marcello Carioni and will be part of the group Mathematics of Imaging and Artificial Intelligence (MIA) headed by Prof. Christoph Brune at the department of Applied Mathematics.

For more information about the position and the application procedure, you are welcome to visit

https://utwentecareers.nl/en/vacancies/615/phd-position-in-infinite-dimensional-optimization-for-theoretical-machine-learning/

and contact Dr. Marcello Carioni (m.c.carioni@utwente.nl).
Deadline: 10 July 2022.

From: "Bastian von Harrach" <harrach@math.uni-frankfurt.de>
Date: June 1, 2022
Subject: PhD/Postdoc Position Quantum supported Maritime Just-in-time-Navigation

The Institute of Mathematics (research area Numerics) of the Department
of Computer Science and Mathematics of the Goethe-University Frankfurt
am Main invites applications for a Research Assistant (m/f/d)

PhD/Postdoc position (75% E13 TV-G-U, limited to 2 years) in the project QSMN "Quantum supported Maritime Just-in-time-Navigation". A link to the official job advertisement ad (in German) can be found here:

https://urldefense.com/v3/__http://numerical.solutions__;!!HXCxUKc!3uVSKhhByf0kNuRw7_ErRsL-JGWU0YBYwnoR1R-FQ6hVqgDw08Q1hq5aQJYBOvORlu3MIEBnPMx-e6vwG-1V-m1LQgGKwFCX0qY$

English applications are welcome, and applications can be considered can after the stated deadline until the position is filled.

Prof. Dr. Bastian von Harrach
Institute of Mathematics
Goethe University Frankfurt
Robert-Mayer-Str. 10
60325 Frankfurt am Main
Germany

From: Voichita Maxim <voichita.maxim@creatis.insa-lyon.fr>
Date: Friday, June 3, 2022
Subject: Post-doctoral position in Lyon, France

CREATIS laboratory from Lyon, in collaboration with the the Institute of Physics of Two Infinities (IP2I) are offering a post-doc position in the domain of deep learning for tomographic inverse problems. The recruited person will work on Deep learning-based spectral image reconstruction for Compton camera devices. Details on the announcement can be found at:

https://www.creatis.insa-lyon.fr/site7/en/node/47215

The post-doc is funded by the Labex PRIMES:

https://primes.universite-lyon.fr/

Thank you for circulating this offer.

Best regards,
Voichita Maxim and Etienne Testa

Submitted by:
Voichita Teodora Maxim
CREATIS, INSA de Lyon tel. 04 72 43 61 41
bât. L. de Vinci, 2ème etage
F-69621 Villeurbanne cedex, France

From: Matteo Santacesaria <santacesaria@dima.unige.it>
Date: Monday, June 6, 2022
Subject: PhD position on Machine Learning for Low Field MRI

It is a pleasure to announce the call for one PhD student Applied Mathematics at the University of Genoa, Italy, in collaboration with Esaote Spa. This applied research project will explore several important open issues in low field MRI that can be tackled with the help of AI techniques. The aim of

the research is to combine the mathematical model of low field MRI with recent advances in AI to improve image reconstruction algorithms.

The start of the positions is planned in Autumn 2022, and the duration of the contracts is 3 years. At this stage, perspective candidates are asked to complete an expression of interest.

For more details visit https://malga.unige.it/open-positions/, where you may find other PhD and postdoc positions.

All the research activities will be carried out at MaLGa (https://malga.unige.it), the Machine Learning Genoa Centre. Today the center counts 14 faculties and around 40 PhD students/postdocs and provides a lively and dynamic work environment.

Please feel free to circulate this announcement.

Best wishes
Matteo

Submitted by: Matteo Santacesaria, Assistant Professor
MaLGa - Machine Learning Genoa Center: https://malga.unige.it/
Department of Mathematics
University of Genoa
Personal Homepage: https://sites.google.com/view/santacesaria/home

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From: noreply@iopscience.org
Date: June 14, 2022
Subject: Inverse Problems, Volume 38, Numbers 5-6

Inverse Problems May 2022 Volume 38, Number 5
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Special Issue Article:

Shearlet-based regularization in statistical inverse learning with an application to x-ray tomography
Tatiana A Bubba and Luca Ratti

Papers:

Regularization of ill-posed problems involving constant-coefficient pseudo-differential operators
Milad Karimi

Blood and breath alcohol concentration from transdermal alcohol biosensor data: estimation and uncertainty quantification via forward and inverse filtering for a covariate-dependent, physics-informed, hidden Markov model
Clemens Oszkinat, Tianlan Shao, Chunming Wang, I G Rosen, Allison D Rosen, Emily B Saldich and Susan E Luczak

On regularization via frame decompositions with applications in tomography
Simon Hubmer, Ronny Ramlau and Lukas Weissinger

Multi-parameter analysis of the obstacle scattering problem

Matteo Dalla Riva, Paolo Luzzini and Paolo Musolino

Addendum:

Addendum: On stochastic Kaczmarz type methods for solving large scale systems of ill-posed equations (2022 Inverse Problems 38 025003)
J C Rabelo and A Leitão

https://iopscience.iop.org/issue/0266-5611/38/5

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Special Issue Article:

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James W Webber and Eric Todd Quinto

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Ruixue Gu, Hongsun Fu and Bo Han

Permeability estimation of a porous structure in cancer treatment based on sampled velocity measurement
Sepideh Afshar and Weiwei Hu

Integrable nonlocal derivative nonlinear Schrödinger equations
Mark J Ablowitz, Xu-Dan Luo, Ziad H Musslimani and Yi Zhu

Mumford–Shah regularization in electrical impedance tomography with complete electrode model
Jyrki Jauhiainen, Aku Seppänen and Tuomo Valkonen

Adaptively sketched Bregman projection methods for linear systems
Zi-Yang Yuan, Lu Zhang, Hongxia Wang and Hui Zhang

Inverse problems for generalized quasi-variational inequalities with application to elliptic mixed boundary value systems
Jinxia Cen, Akhtar A Khan, Dumitru Motreanu and Shengda Zeng

Determination of an unknown shear force in cantilever Kirchhoff–Love plate from measured final data with application to atomic force microscope
Alemdar Hasanov and Alexandre Kawano

Inversion formulae for ray transforms in vector and tensor tomography
Alfred K Louis

Increasing stability in the linearized inverse Schrödinger potential problem with power type nonlinearities
Shuai Lu, Mikko Salo and Boxi Xu

Edge adaptive hybrid regularization model for image deblurring
Tingting Zhang, Jie Chen, Caiying Wu, Zhifei He, Tieyong Zeng and Qiyu Jin

Minimizing L_1 over L_2 norms on the gradient
Chao Wang, Min Tao, Chen-Nee Chuah, James Nagy and Yifei Lou

A new nonlocal low-rank regularization method with applications to magnetic resonance image denoising
Jian Lu, Chen Xu, Zhenwei Hu, Xiaoxia Liu, Qingtang Jiang, Deyu Meng and Zhouchen Lin

https://iopscience.iop.org/issue/0266-5611/38/6
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IPNet Digest Volume 29, Number 10 July 11, 2022

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

Today's Topics:

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: "Miller, Eric L" <Eric.Miller@tufts.edu>
Date: Tuesday, June 28, 2022
Subject: Image Analysis/Computer Vision Post Doc

I have an immediate opening for a post-doctoral research associate to undertake a project focusing on the development of processing and analysis methods to address problems of denoising, segmentation, and adaptive sampling/acquisition of 4D (3 space + time) two-photon excited fluorescence (TPEF) data cubes. This work will be performed in collaboration with a team of biomedical engineers seeking to understand the role of metabolic dysfunction at the onset of Alzheimer's disease (AD) using information that can be gleaned from dynamic, TPEF data collected from human brain-like AD tissue models. More specifically, a key aim of the project is to develop the models and processing tools to extract from these data robust optical metabolic readouts of AD tissue models monitored dynamically to identify the changes that occur at the onset of neuroinflammation and plaque-like formation and the extent to which they are reversed upon interventions.

Applicants must have a PhD in electrical engineering, computer science, applied mathematics, statistics or a similar field. The ideal candidates will have experience with modern methods of image processing, mathematical imaging, and/or computer vision and a strong technical background in one or more of the following: machine learning, statistical signal and image processing, optimization, and data science. Programming experience in Matlab or python is preferred.

For more information about this position, please email Prof. Eric Miller at eric.miller@tufts.edu. Interested candidates should provide Prof. Miller with a copy of their CV, list of references, cover letter, and copies of relevant articles, theses, technical reports etc.

Submitted by: Eric L. Miller
Director, Tufts Institute for Artificial Intelligence
Professor of Electrical and Computer Engineering
Professor of Computer Science, Secondary Appointment
Professor of Mathematics, Secondary Appointment
Professor of Biomedical Engineering, Secondary Appointment

eric.miller@tufts.edu
Phone: 617.627.0835
Office: Joyce Cummings Center, Room 616
Ground mail: Halligan Hall, 161 College Ave., Medford Ma, 02155

From: José A. Iglesias <jose.iglesias@utwente.nl>
Date: July 28, 2022
Subject: PhD Position in mathematical Shape Analysis, University of Twente

We are looking for a PhD candidate to work on efficient shape representations. This is a challenging area connecting geometry to numerical mathematics and with wide-ranging applications, particularly in biological and medical imaging.

The successful candidate will be supervised by Dr. José A. Iglesias Martínez (jose.iglesias@utwente.nl) within the Mathematics of Imaging and AI group headed by prof. C. Brune at the Department of Applied Mathematics.

Further information about the position and an application form (with deadline 17 July 2022) are available at:
https://urldefense.com/v3/__https://utwentecareers.nl/en/vacancies/614/phd-position-in-mathematical-shape-analysis/__;!!HXCxUKc!ztm0rWmxqFRKjGNorqPPoQaKF8zxxjY_fXRswf8X2Jb53S0WTTCCJcBTgF7FtEs7jARJw5ZdMeY95okebneJasFquUg-k0GGAA$

From: Simon Arridge <S.Arridge@cs.ucl.ac.uk>
Date: July 11, 2022
Subject: Postdoc Research Fellow in Broadband Ultrasound Tomography Image Reconstruction

Duties and Responsibilities

UCL's Department of Computer Science conducts internationally leading research across a broad range of theoretical and applied topics. This post will build on considerable experience in developing novel approaches to ultrasound tomography and photoacoustic tomography gained through a long term collaboration with UCL's Photoacoustic Imaging and Biomedical Ultrasound Groups.

Duties of the research associate include developing and conducting individual and collaborative research objectives, proposals and projects as part of the overall work of the Ultrasound Computed Tomography project. The research associate must be able to communicate material of a technical nature and be able to build internal and external contacts. They may be asked to assist in the supervision of student projects, the development of student research skills, provide instruction and plan/deliver seminars relating to the research area of the project.

Key Requirements

Applicants must have (or be about to receive) a PhD degree in mathematics or statistics (or a closely related discipline). The ideal candidates will be experienced in one or more of the following areas: inverse problems, mathematical imaging, analytical and computational methods for solving partial differential equations, optimisation. Experience in programming is highly desirable (e.g. MATLAB / Python/C++).

Further Details
See:
https://atsv7.wcn.co.uk/search_engine/jobs.cgi?SID=amNvZGU9MTg4NTY0MSZ2dF90ZW1wbGF0ZT05NjUmb3duZXI9NTA0MTE3OCZvd25lcnR5cGU9ZmFpciZicmFuZF9pZD0wJmpvYl9yZWZfY29kZT0xODg1NjQxJnBvc3RpbmdfY29kZT0yMjQ=

Informal enquiries to :
Simon Arridge : S.Arridge@ucl.ac.uk
Ben Cox : B.Cox@Ucl.ac.uk

From: Karen Veroy-Grepl k.p.veroy@tue.nl [via NADIGEST]
Date: June 15, 2022
Subject: Assistant Professor Position, TU/e

Eindhoven University of Technology is aiming to appoint a Tenure-track Assistant Professor in Computational Science at the Center for Analysis, Scientific Computing and Applications in the Department of Mathematics and Computer Science.

The Computational Science group focuses on numerical methods for (partial) differential equations, model order reduction, and scientific machine learning, particularly for the efficient solution of differential equations in the context of data assimilation, control, optimization, inverse problems, Bayesian methods, uncertainty quantification, and optimal experimental design. For this position, we are looking for an applied mathematician with expertise in one or more of these fields, and an interest in exploring connections not only to current developments in applied mathematics, but also to applications through academic and industrial collaborations in fields such as medicine, mechanical engineering, electrical engineering, geophysics, and others.

During the first six months the position is open to female applicants only; if, after six months, the position has not been filled, the position will then be opened to all applicants. For more information, please visit

https://urldefense.com/v3/__https://jobs.tue.nl/en/vacancy/assistant-professor-in-computational-science-932807.html__;!!HXCxUKc!2zm2YmeTNwIZzL77tF2fAYSFao8jK7zc8DS0jv4etOm_9bsIygneVvf6rQeR-DCGiFIDdCHWdWmV8m9ufPNdDkouJl_9bkUQ_PQ$

or contact Karen Veroy-Grepl .

Applications received before 31 July 2022 are guaranteed full consideration, but applications will continue to be screened until the position is filled.

From: Markus Bachmayr bachmayr@igpm.rwth-aachen.de [via NADIGEST]
Date: June 17, 2022

Subject: PhD/Postdoc Positions, Parametric and random PDEs, Germany

Several positions in DFG-funded projects that can be filled at PhD or Postdoc level are available at RWTH Aachen, on several different subjects in numerical methods for parameter-dependent or random partial differential equations:

- Variationally correct methods based on neural networks for direct and inverse problems for parametric PDEs (project leaders: Markus Bachmayr and Wolfgang Dahmen),

- Construction and analysis of solvers combining sparse and low-rank approximations for parametric and random problems with multiscale features (project leaders: Markus Bachmayr and Lars Grasedyck),

- Adaptive stochastic Galerkin solvers of optimal computational complexity for PDEs with low-regularity random coefficients (project leader: Markus Bachmayr).

Applications will be accepted until the positions are filled. To apply, please send your application materials (motivation letter, CV, publication list, statement of research interests, transcripts) to Julia Schmitt-Holtermann (jholterm@igpm.rwth-aachen.de), indicating which of the above areas you are interested in. Informal inquiries are welcome.

From: Heiko Gimperlein heiko.gimperlein@uibk.ac.at [via NADIGEST]
Date: June 17, 2022
Subject: PhD Position, Medical imaging and inverse problems, Univ Innsbruck

The new multidisciplinary FWF Forschungsgruppe "Oxidative damage & repair of membrane lipids in health and disease" offers 5 fully funded PhD positions between mathematics and medicine.

The projects are jointly supervised by colleagues from different backgrounds at the University and the Medical University of Innsbruck.

The following two PhD projects may be of most interest to mathematicians:

P2: LC-MS/MS inverse problem data analysis approach (based at Medical University)

P3: Artificial neural network based imaging analysis (based at University of Innsbruck)

Screening of applications starts on June 22, 2022. Late applications are welcome.

Further information is available at https://urldefense.com/v3/__https://www.i-med.ac.at/fg15__;!!HXCxUKc!2zm2YmeTNwIZzL77tF2fAYSFao8jK7zc8DS0jv4etOm_9bsIygneVvf6rQe

R-DCGiFIDdCHWdWmV8m9ufPNdDkouJl_9mS2cFFo$ or by email (fg15@i-med.ac.at or Dr. Lukas Neumann, Lukas.Neumann@uibk.ac.at).

From: "noreply@iopscience.org" <noreply@iopscience.org>
Date: Thursday, June 23, 2022
Subject: Inverse Problems, Volume 38, Number 3, March 2022

Inverse Problems March 2022 Volume 38, Number 3
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A new type of CGO solutions and its applications in corner scattering
Jingni Xiao

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Consistency of Bayesian inference with Gaussian process priors for a parabolic inverse problem
Hanne Kekkonen

Deep neural-network based optimization for the design of a multi-element surface magnet for MRI applications
Sumit Tewari, Sahar Yousefi and Andrew Webb

Estimating the memory parameter for potentially non-linear and non-Gaussian time series with wavelets
Chen Xu and Ye Zhang

A content-adaptive unstructured grid based regularized CT reconstruction method with a SART-type preconditioned fixed-point proximity algorithm
Yun Chen, Yao Lu, Xiangyuan Ma and Yuesheng Xu

Graph-based prior and forward models for inverse problems on manifolds with boundaries
John Harlim, Shixiao W Jiang, Hwanwoo Kim and Daniel Sanz-Alonso

Initial state estimation from limited observations of the heat equation in metric graphs
Satoru Iwasaki

A note on the high-dimensional sparse Fourier transform in the continuous setting
Liang Chen

Carleman estimates and the contraction principle for an inverse source problem for nonlinear hyperbolic equations
Loc H Nguyen and Michael V Klibanov

The lower bound of nonlocal gradient for non-convex and non-smooth image patches based regularization
Junying Meng, Faqiang Wang, Li Cui and Jun Liu

An inversion algorithm for P-functions with applications to multi-energy CT
Guillaume Bal, Ruoming Gong and Fatma Terzioglu

Un-supervised learning for blind image deconvolution via Monte-Carlo sampling
Ji Li, Yuesong Nan and Hui Ji

https://iopscience.iop.org/issue/0266-5611/38/3
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IPNet Digest Volume 29, Number 11 September 1, 2022

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

Today's Topics:

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: Keith Woodbury <keith.woodbury@woodburyeng.com>
Wednesday, August 31, 2022
Subject: Jim Beck

James Vere Beck, Professor Emeritus of Michigan State University, passed away on 28 July 2022 after a short illness at age 92. During his lifetime, Prof. Beck made significant contributions to the fields of parameter estimation, inverse problems, and conduction heat transfer with over 200 contributions to archival journals in these fields. He is well-known for his three seminal books: Parameter Estimation in Engineering and Science, Inverse Heat Conduction: Ill-posed problems, and Heat Conduction using Green's Functions. Prof. Beck initiated annual meetings on inverse problems at Michigan State (the Inverse Problems Symposium) which later evolved into triennial international meetings (the International Conference in Inverse Problems in Engineering). His warm personality and penchant for simple, direct approaches to solution of complex problems will be missed.

From: "Miller, Eric L" <Eric.Miller@tufts.edu>
Date: Tuesday, August 23, 2022
Subject: Machine Learning Post doctoral Opening

Tufts University has openings for a post-doctoral researcher to engage in a cross-cutting project focusing on the development of machine learning models and algorithms to advance precision medicine in the area of anti-microbial resistance (AMR); i.e., the increasing ability of bacteria, fungi, and other micro-organisms to develop resistance to a range of antibiotics and other drugs. Current work is focused on the development of combination therapies adapted to the specifics of the case-in-hand. Such efforts lead naturally to a pair of related learning problems: prediction of clinical outcomes from a given course of treatment and determination of an optimal treatment strategy (which drugs in which amounts as a function of time) to achieve a desired clinical outcome both of which are hampered by the availability of relatively small sets of data. The project will involve collaboration with investigators with expertise in machine learning and signal processing, basic cell biology and biological engineering, as well as clinical immunology and infectious disease.

Applicants must have a PhD in electrical engineering, computer science, applied mathematics, statistics, or a similar field. The ideal candidates will have experience with and a publication record

in one or more of the following areas: modern methods of statistical signal processing, machine learning, optimization, or data science. Programming experience in Matlab or python is preferred.

For more information about this position, please email Prof. Eric Miller (eric.miller@tufts.edu) and Prof. Bree Aldridge (bree.aldridge@tufts.edu). Interested candidates should provide Prof. Miller with a copy of their CV, list of references, cover letter, and copies of relevant articles, theses, technical reports etc.

Submitted by: Eric L. Miller Director, Tufts Institute for Artificial Intelligence
Professor of Electrical and Computer Engineering
Professor of Computer Science, Secondary Appointment
Professor of Mathematics, Secondary Appointment
Professor of Biomedical Engineering, Secondary Appointment
Contact: email, zoom, calendar
Phone: 617.627.0835
Office: Joyce Cummings Center, Room 616
Ground mail: Halligan Hall, 161 College Ave., Medford Ma, 02155

From: johan.suykens@esat.kuleuven.be
Date: Tuesday, August 30, 2022
Subject: Postdoc positions KU Leuven (ERC Advanced grant E-DUALITY)

The research group KU Leuven ESAT-STADIUS is currently offering 2 Postdoc (1 year, extendable) positions within the framework of the ERC (European Research Council) Advanced Grant E-DUALITY https://urldefense.com/v3/__http://www.esat.kuleuven.be/stadius/E__;!!HXCxUKc!yJJx3nspnO_YdrlivCALJn09Cp3nf-SgLv8TBndAx87qbu9cUz2csxIQCB-XVxsluG9lAdOTDJm_cV54fqcNr-cw_KgMtqb5XZw8ULE$ (PI: Johan Suykens) on Exploring Duality for Future Data-driven Modelling.

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

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

For further information and on-line applying, see https://urldefense.com/v3/__https://www.kuleuven.be/personeel/jobsite/jobs/60153047__;!!HXCxUKc!yJJx3nspnO_YdrlivCALJn09Cp3nf-SgLv8TBndAx87qbu9cUz2csxIQCB-XVxsluG9lAdOTDJm_cV54fqcNr-cw_KgMtqb5le355Rc$
(click EN for English version).

The research group ESAT-STADIUS
https://urldefense.com/v3/__http://www.esat.kuleuven.be/stadius__;!!HXCxUKc!yJJx3nspnO_YdrlivCALJn09Cp3nf-SgLv8TBndAx87qbu9cUz2csxIQCB-XVxsluG9lAdOTDJm_cV54fqcNr-cw_KgMtqb5ClZlJ9Q$ at
the university KU Leuven Belgium provides an excellent research
environment being active in the broad area of mathematical engineering,
including data-driven modelling, neural networks and machine learning,
nonlinear systems and complex networks, optimization, systems and
control, signal processing, bioinformatics and bio-medicine.

From: Marlis Hochbruck marlis.hochbruck@kit.edu [via NA-Digest]
Date: August 18, 2022
Subject: Tenure Track Position, Numerical methods for PDEs, KIT

Karlsruhe Institute of Technology invites applications for a tenure-track professorship (W1) for numerical methods for partial differential equations. Possible research areas are space discretization, time discretization, inverse problems, optimization or uncertainty quantification. A relation to wave phenomena is mandatory. Participation in the research focus "Partial Differential Equations" and the Collaborative Research Center 1173 "Wave Phenomena" at the Department of Mathematics is expected.

Employment will initially be for a period of six years. If the final tenure evaluation is positive, the successful candidate will be promoted to the rank of tenured full professor (W3).

Deadline for applications is September 7, 2022. More information about the position and how to apply can be found here:
https://urldefense.com/v3/__https://www.pse.kit.edu/english/karriere/joboffer.php?id=81225&new=true__;!!HXCxUKc!0YwUP50hKn5amtueCZqB16Hu8WRUVu013TQrkdC4g4w6P4WTl5CBTSMJJmSBIBXdqob1yyG70oNQSBA0qwtFDJtF6-qNHTp7yD8$

From: Mitch Graham mgraham@siam.org [via NA-Digest]
Date: August 05, 2022
Subject: New Book, A Toolbox for Digital Twins

A Toolbox for Digital Twins: From Model-Based to Data-Driven
by Mark Asch

This book brings together the mathematical and numerical frameworks needed for developing digital twins. Starting from the basics -- nprobability, statistics, numerical methods, optimization, and machine learning -- and moving on to data assimilation, inverse problems, and Bayesian uncertainty quantification, the book provides a comprehensive toolbox for digital twins. Emphasis is also placed on the design process, denoted as the "inference cycle," the aim of which is to propose a global methodology for complex problems.

July 2022 / xxiv + 832 pages / Softcover / 978-1-611976-96-0 / Price $120.00

Bookstore Link:
https://urldefense.com/v3/__https://my.siam.org/Store/Product/viewproduct/?ProductId=41813926__;!!HXCxUKc!0YwUP50hKn5amtueCZqB16Hu8WRUVu013TQrkdC4g4w6P4WTl5CBTSMJJmSBIBXdqob1yyG70oNQSBA0qwtFDJtF6-qNJ80PkXk$

From: "alerts@tandfonline.com" <alerts@tandfonline.com>
Date: Thursday, September 1, 2022
Subject: Contents, Applied Mathematics in Science and Engineering, Volume 30, Issue 1

Applied Mathematics in Science and Engineering 2022 Volume 30, Issue 1
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The issue is in progress. To view all articles already published in this issue, please visit:
https://www.tandfonline.com/toc/gipe21/30/1
------ end -------

IPNet Digest Volume 29, Number 12 September 22, 2022

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

Today's Topics:
Reconstruction Algorithms: The Helsinki Tomography Challenge 2022
Postdocs: Inverse Problems and Uncertainty Quantification at LUT University
Professorship: Inverse Problems at TU Chemnitz
TT/Postdoc Positions: Computational Mathematics, Data Science, at Emory U.

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: Meaney, Alexander J B <alexander.meaney@helsinki.fi>
Date: Wednesday, September 14, 2022
Subject: The Helsinki Tomography Challenge 2022

Dear All,

limited-angle computed tomography is an increasingly relevant technique in medical imaging. To accelerate the development of new reconstruction algorithms for limited-angle CT, the Finnish Inverse Problems Society (FIPS) has announced the Helsinki Tomography Challenge (HTC 2022). We invite research groups to test their reconstruction algorithms and participate in HTC 2022.

The top participants of the challenge will be invited to a minisymposium at the Inverse Days Conference organized by the Finnish Inverse Problems Society (FIPS) to be held in Kuopio, Finland, in December 2022.

Can you make it the top of the leaderboard? The deadline for registering is September 30th 2022 and the teams have until October 31st 2022 to send their submission.

More information on the Helsinki Tomography Challenge can be found at its website: https://www.fips.fi/HTC2022.php.

Best regards,
Alexander Meaney
University of Helsinki

From: Tapio Helin <Tapio.Helin@lut.fi>
Date: Monday, September 12, 2022
Subject: Two postdoctoral positions in inverse problems and uncertainty quantification at LUT University

Dear all,

at LUT University in Finland we have two open positions for postdoctoral researchers in inverse problems and uncertainty quantification. The positions are fixed-term for 2 years and are funded by

the Academy of Finland consortium research project “New frontiers in Bayesian optimal design for applied inverse problems” and the Academy of Finland Centre of Excellence of Inverse Modelling and Imaging.

The deadline for applications is October 2. More information about positions and how to apply is available at

https://lut.rekrytointi.com/paikat/index.php?jid=750&key=&o=A_RJ&rspvt=azv3prg76ygwo44ccg4ww0ccs4c0cgc

Also, feel free to ask me directly. Thank you for spreading the word!

Best regards,
Tapio Helin

Submitted by:
Tapio Helin
Associate Professor
Computational Engineering
School of Engineering Science
LUT University

tapio.helin@lut.fi
+358 50 475 0767

From: Martin Stoll martin.stoll@mathematik.tu-chemnitz.de [via NADIGEST]
Date: August 29, 2022
Subject: Professor Position, Inverse Problems, TU Chemnitz

The Department of Mathematics at the Technical University of Chemnitz invites applications for a W2-Professorship (tenured) in Inverse Problems (m/f/d) to be filled in early 2023.

Successful candidates are expected to be internationally visible in the area of inverse problems with a strong focus on topics such as data assimilation, machine learning, parameter identification for PDEs, and image processing.

The successful candidate will demonstrate outstanding achievements and potential in research as well as international recognition within the field of inverse problems and is expected to complement and strengthen the department's active research areas numerical linear algebra, uncertainty quantification, approximation theory, partial differential equations, inverse problems and optimization. Strong candidates are desired to have a record of acquiring external funding and exhibit willingness for interdisciplinary collaboration.

Applicants are requested to submit the usual application materials (cover letter, curriculum vitae, list of publications, teaching evaluations, research and teaching statement) electronically as a single pdf document no later than October, 09, 2022 to dekanat@math.tu-chemnitz.de

Please address all other inquiries to
martin.stoll@mathematik.tu-chemnitz.de

From: Chung, Julianne <julianne.mei-lynn.chung@emory.edu>
Date: Monday, September 12, 2022
Subject: Faculty and Postdoc Positions, Mathematics, Emory Univ

The Department of Mathematics at Emory University seeks to expand and diversify its faculty through an ambitious recruitment plan, which includes open rank Tenure Track Faculty positions (Assistant, Associate or Full Professor) in Computational Mathematics and Postdoc Fellowship positions for an NSF funded Research Training Group in Computational Mathematics for Data Science (http://www.math.emory.edu/site/codes/).

For further details on these positions, including desired qualifications and required application materials, please see: http://www.math.emory.edu/about/faculty-hiring/.

Applications can be submitted using one of the following links:
TTF Position in Computational Math for AI: http://apply.interfolio.com/112401
RTG Postdoc Fellowship Position: http://apply.interfolio.com/111387

Screening of Applications will begin on November 1. Applications received by December 1 will be given full consideration. Faculty positions are expected to start on August 1, 2023. RTG Postdoc positions can have a starting date of either January 1, 2023 or August 1, 2023.

Emory University is a top-ranked private institution recognized internationally for its outstanding colleges, graduate and professional schools, and one of the world's leading healthcare systems. Emory scholars and experts generate more than $894 million in research funding annually while also highly valuing excellence in teaching. Emory University is an equal employment opportunity and affirmative action employer. Women, minorities, people with disabilities, and veterans are strongly encouraged to apply.
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IPNet Digest Volume 29, Number 13 September 22, 2022

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

Today's Topics:

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: Yiqiu Dong <yido@dtu.dk>
Sent: Monday, September 26, 2022
Subject: Postdoc Positions on Synergies between Tomography and Fusion Plasma, DTU, Denmark

Postdoc Positions on Synergies between Tomography and Fusion Plasma, DTU, Denmark

The Technical University of Denmark has an opening for two 2-year Postdoc positions. The positions are part of the research project “Tomography of Alpha Particles in Fusion Plasma (TAPP)”. The goal of the TAPP projects is to exploit and further develop the novel tomographic reconstruction methods to explain new physics of the energetic alpha particles by using comprehensive data from the fusion device through velocity-space tomography.

Two positions will be hired at either DTU Compute or DTU Physics. The candidate must have either a solid background in inverse problems or deep understanding on the physics of fusion plasmas.

For more details and to apply:
https://www.dtu.dk/english/about/job-and-career/vacant-positions/job?id=235a4c72-c548-4195-8314-41217d478d40

The deadline of applications is 22 October 2022 at 23:59 (Danish time).

Submitted by: Yiqiu Dong
DTU Compute, Technical University of Denmark, Denmark

From: Kui Ren <kr2002@columbia.edu>
Sent: Thursday, September 22, 2022
Subject: Limited-Term Assistant Professor in Applied Mathematics at Columbia University

Limited-Term Assistant Professor in Applied Mathematics at Columbia University

The Department of Applied Physics and Applied Mathematics (APAM) at Columbia University in the City of New York invites applications for a limited term Assistant Professor faculty position in the area of applied and computational mathematics. The position begins July 1, 2023 for a term of 3 years.

Salary is competitive and the teaching load is relatively light. Basic responsibilities focus on teaching, research and service.

A recent PhD earned in the last 3 years and no later than the start date of the appointment, and extraordinary promise in research, are both required. A broad array of research groups is active in the department, with current research encompassing applied and computational mathematics, and their application to many areas of physics, materials science, biology, earth science, as well as imaging and data science.

There is a strong cohort of activities on applied and computational mathematics within the Fu Foundation School of Engineering and Applied Sciences and the affiliated Data Science Institute. The Department is especially interested in qualified candidates who can contribute, through their research, teaching, and/or service, to the diversity and excellence of the academic community.

Applications must include: (a) curriculum vitae (b) statement of research, (c) statement of teaching, and (d) at least three letters of recommendation.

Candidate must also apply through: http://apply.interfolio.com/114046

Applications received by November 7, 2022 will be given full consideration. For questions concerning the position, please email apam@columbia.edu

Applicants are encouraged to consult http://appliedmath.apam.columbia.edu for more information about the applied mathematics program, and https://apam.columbia.edu/ for more information about the department.

Columbia University is an Affirmative Action/Equal Opportunity Employer.

Columbia University is an Equal Opportunity/Affirmative Action employer -- Race/Gender/Disability/Veteran

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From: Shiqian Ma <sqma@rice.edu>
Sent: Sunday, October 2, 2022
Subject: Tenure-Track Faculty Positions in Department of Computational Applied Mathematics and Operations Research at Rice University

The Department of Computational Applied Mathematics and Operations Research (CMOR) at Rice University in Houston, Texas, seeks outstanding candidates for two positions aligned with its expansion in computational and applied mathematics. We envision the candidates to work in the broad area of computational and applied mathematics, in application areas such as medicine, energy, data science, molecular nanotechnology, materials & quantum physics, quantum computing, aerospace, and others (https://engineering.rice.edu/research-faculty/research-focus-areas). We expect to hire both positions at the rank of tenure-track assistant professor; however, we will consider exceptional candidates at the rank of associate professor.

For more information, please visit https://apply.interfolio.com/112731

Submitted by:
Shiqian Ma
Computational Applied Math & Operations Research
Rice University

and Dept. of Math, UC Davis (on leave)
https://sqma.rice.edu/

From: Elmlund, Hans (NIH/NCI) [E] <hans.elmlund@nih.gov>
Sent: Monday, October 3, 2022
Subject: Career opportunities for mathematically inclined researchers @ NIH

Dear All,

The Biological Computing Section (BCS) group develops algorithmic solutions to address the increasing demands for quantitative and computational approaches in electron microscopy, integrative structural biology, and materials science. We are looking to recruit candidates that have substantial documented expertise in software development in quantitative science areas (preferably mathematics, computer science, physics, statistics, engineering, materials science, theoretical chemistry, medical imaging, or bioinformatics); that have demonstrated experience of working in interdisciplinary environments to solve difficult computational problems and possess problem solving skills that are transferrable to the development of structural methodologies that can make a significant impact on biomedical and materials research world-wide. Currently, we have two positions two fill. One training post (postdoctoral):

https://ccr.cancer.gov/careers/post-doctoral-fellow-electron-microscopy-image-processing-algorithm-development/24314

and one more senior (staff scientist) post:

https://www.training.nih.gov/jobs/view/_10/10004/SS_09232022

If you or your friends are interested in using your mathematical prowess to contribute to developing image processing algorithms for biomedical research, please apply, or contact me (hans.elmlund@nih.gov) if you have questions.

Sincerely,

HANS ELMLUND PhD
Senior Investigator

National Institutes of Health
National Cancer Institute—Frederick Campus
1050 Boyles St, Fredrick MD 21702
United States of America

T: +1(301)846-5670
M: +1(240)739-9079
E: hans.elmlund@nih.gov
simplecryoem.com

From: noreply@iopscience.org
Date: October 5, 2022
Subject: Inverse Problems, Volume 38, Numbers 7, 9

Inverse Problems July 2022 Volume 38, Number 7

Special Issue Article:

Analysis of the inverse Born series: an approach through geometric function theory
Jeremy G Hoskins and John C Schotland

Papers

A stability result for the identification of a permeability parameter on Navier–Stokes equations
Jorge Aguayo and Axel Osses

A stochastic gradient descent approach with partitioned-truncated singular value decomposition for large-scale inverse problems of magnetic modulus data
Wenbin Li, Kangzhi Wang and Tingting Fan

Imaging conductivity from current density magnitude using neural networks*
Bangti Jin, Xiyao Li and Xiliang Lu

Determining damping terms in fractional wave equations
Barbara Kaltenbacher and William Rundell

Parameter identification for elliptic boundary value problems: an abstract framework and applications
Heiko Hoffmann, Anne Wald and Tram Thi Ngoc Nguyen

Task adapted reconstruction for inverse problems
Jonas Adler, Sebastian Lunz, Olivier Verdier, Carola-Bibiane Schönlieb and Ozan Öktem

Convergence study and regularizing property of a modified Robin–Robin method for the Cauchy problem in linear elasticity
Abdellatif Ellabib, Abdeljalil Nachaoui and Abdessamad Ousaadane

Simultaneous determination of different class of parameters for a diffusion equation from a single measurement
Yavar Kian

Revisiting the probe and enclosure methods
Masaru Ikehata

Determination of the solution of a stochastic parabolic equation by the terminal value
Fangfang Dou and Wanli Du

Joint gravity and magnetic inversion with trans-dimensional alpha shapes and autoregressive noise models
Emad Ghalenoei, Jan Dettmer, Mohammed Y Ali and Jeong Woo Kim

Bayesian statistical inference using a regression in electrical impedance tomography
Lia Jisoo Lee and Marie Graff

https://iopscience.iop.org/issue/0266-5611/38/7

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IPNet Digest Volume 29, Number 14 October 20, 2022

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

Today's Topics:

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: IPIA office <ipia@gwdg.de>
Sent: Wednesday, October 12, 2022
Subject: Call for nominations of Calderón prizes 2021 and 2023

The Inverse Problems International Association (IPIA) invites nominations for the Calderón Prizes of the years 2021 and 2023. The prize is awarded biannually for exceptional contributions to the field of Inverse Problems. Nominees must be under the age of 40 at the time the prize is awarded. Both prizes will be awarded at AIP 2023, which will take place in Göttingen from September 4-8, 2023. Nominees for the Calderón Prize 2021 must be born after 09-04-1981. There will be a joint committee for both prizes, and persons born after 09-04-1983 may be nominated for both prizes.

Nominations including a CV, a list of publications, and a laudation in .pdf format may be sent to ipia@gwdg.de before 02-28-2023.

From: Martin Benning <mb941@cam.ac.uk>
Sent: Monday, October 10, 2022
Subject: Hausdorff School, Data-driven Inverse Problems in Biomedical Imaging, Apr 2023

Hausdorff School, Data-driven Inverse Problems in Biomedical Imaging, Apr 2023
Organizers; Martin Benning (Queen Mary University of London), Alexander Effland (University of Bonn), Erich Kobler (University of Bonn)

Various key problems in biomedical imaging can be modeled as inverse problems (e.g. single image super-resolution, undersampling in magnetic resonance imaging, limited angle tomography, registration, segmentation). Numerous deep learning-inspired methods to tackle these inverse problems have been developed in recent years, often redefining the state of the art.

The Hausdorff School on Data-driven Inverse Problems in Biomedical Imaging focuses on several mini-courses that explore this topic from both theoretical and applied perspectives.

The school is aimed at PhD students and postdocs and takes place between April 11 - 14, 2023, at the Lipschitz lecture hall, Mathematics Center, Endenicher Allee 60, 53115 Bonn, Germany.

List of speakers:

Tatiana Bubba
Jan Modersitzki
Marcelo Pereyra
Thomas Pock

Please send applications via https://www.hsm.uni-bonn.de/events/hausdorff-schools/biomedical-imaging2023/biomed-2023-app/. Limited financial support for travel and accommodation expenses may be available for PhD students and postdocs. There are no participation fees.

To be considered for participation, a CV and Letter of Intent (1 page) are required, as well as the name and contact information of a potential reference. (At this time, we do not request a letter of recommendation.) Only one document can be uploaded, so please combine all documentation into one PDF.

Please note: Everyone interested in participating - disregarding whether there is need for financial support or not - has to register so that the participation may be administered. Everyone will be notified in due time about whether participation and partial financial support is possible.

The deadline for applications is January 1, 2023. In case of questions, please contact the organizers at
sek-effland(at)iam.uni-bonn.de

Submitted by:
Dr Martin Benning (he/him/his)
Senior Lecturer (Associate Professor) in Inverse Problems and Machine Learning
Turing Fellow at the Alan Turing Institute
Academic Fellow of the Digital Environment Research Institute (DERI)
School of Mathematical Sciences
Queen Mary University of London
Mile End Road
London E14NS
United Kingdom
email: m.benning@qmul.ac.uk

From: Hohage, Thorsten <hohage@math.uni-goettingen.de>
Sent: Wednesday, October 12, 2022
Subject: 2023: Applied Inverse Problems Conference (AIP)

11th Applied Inverse Problems Conference
Date: September 4-8, 2023
Place: Goettingen, Germany
URL: http://www.aip2023.de

Call for minisymposium proposals:
We invite proposals for minisymposia containing the following information:

- Title (up to 100 characters)
- Names and affiliations of organizers

- Description of the topic (about half a page)
- List of speakers including affiliations and links to webpages if available.

A minisymposium may have either 4, 8 or 12 speakers, possibly including the organizers. The speakers should be contacted in advance. Please keep in mind that every participant may give at most two talks, preferably only one.

Proposals should be sent to office@aip2023.de by December 16, 2022.

Deadline for abstract submission of contributed talks: March 10, 2023

Plenary Speakers
* Giovanni Alberti (U. Genoa)
* Laurent Gizon (MPS Goettingen)
* Colin Guillarmou (U. Paris-Saclay)
* Houssem Haddar (INRIA Paris)
* Peter Hintz (ETH Zuerich)
* Richard Nickl (U. Cambridge)
* Gabriel Paternain (U. Cambridge)
* Angkana R³land (U. Heidelberg)
* Jingni Xiao (Drexel U.)
* Xiang Xu (Zhejiang U.)

Scientific Committee
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* F. Cakoni (Rutgers U., USA)
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* T. Hohage (U. Goettingen)
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* G. Nakamura (Hokkaido U.)
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* D. Sieber
* M. Uecker (TU Graz)
* A. Wald
* F. Werner (U. Wuerzburg)

Organized by:
* Inverse Problems International Association (IPIA)

* CRC 1456 Mathematics of Experiment: The challenge of indirect measurements in the natural sciences
* RTG 2088: Discovering Structure in Complex Data

Submitted by:
Thorsten Hohage
Georg-August University Goettingen

From: Naoki Saito <saito@math.ucdavis.edu>
Sent: Monday, October 10, 2022
Subject: Assistant Professor (tenure-track) in mathematics of data science at UC Davis

The Department of Mathematics at the University of California, Davis invites applications for one Assistant Professor (tenure-track) faculty position starting July 1, 2023. This position is in the area of the mathematics of data science.

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 1, 2022. The application is available through UCRecruit @ https://recruit.ucdavis.edu/JPF05108.

The University of California is committed to creating and maintaining a community dedicated to the advancement, application, and transmission of knowledge and creative endeavors through academic excellence, where all individuals who participate in University programs and activities can work and learn together in a safe and secure environment, free of violence, harassment, discrimination, exploitation, or intimidation. With this commitment, UC Davis conducts a reference check on all first choice candidates for Academic Senate Assistant Professor or Lecturer with Potential for Security of Employment, Steps 4, 5, or 6, or Acting Professor of Law positions. The reference check involves contacting the administration of the applicant's previous institution(s) to ask whether there have been substantiated findings of misconduct that would violate the University's Faculty Code of Conduct. To implement this process, UC Davis requires all applicants for any open search for assistant professor to complete, sign, and upload the form entitled "Authorization to Release Information" into RECRUIT as part of their application. If an applicant does not include the signed authorization with the application materials, the application will be considered incomplete, and as with any incomplete application, will not receive further consideration. Although all applicants for faculty recruitments must complete the entire application, only finalists considered for Academic Senate Assistant Professor or Lecturer with Potential for Security of Employment, Steps 4, 5, or 6, or Acting Professor of Law positions will be subject to reference checks.

Department: https://math.ucdavis.edu

From: Naoki Saito <saito@math.ucdavis.edu>
Sent: Monday, October 10, 2022
Subject: Data Science/ML Faculty Position, ECE Dept., UC Davis

The Department of Electrical and Computer Engineering (ECE) at the
University of California, Davis, has a faculty opening in Data Science and
Machine Learning. Candidates with strong interest and leadership skills to

bridge data science research with multiple technical disciplines as well as application domains such as health and connected and autonomous systems are encouraged to apply for this position. The full description of the position can be found at our recruitment page:

https://recruit.ucdavis.edu/JPF05160

For full consideration, applicants should apply by December 1, 2022. Applications from members of under-represented groups are particularly welcomed.

From: Moser, Melanie (melanie.moser@uni-graz.at) <melanie.moser@uni-graz.at>
Sent: Wednesday, October 19, 2022
Subject: University Assistant with doctorate, Graz, Austria

At the University of Graz, researchers and students work across a broad disciplinary spectrum to enlarge our knowledge, and find strategies to deal with challenges our society is confronted with and to shape tomorrow's world. The University of Graz is a place which combines high quality academic research and teaching, where achievement is rewarded, careers are promoted, and social diversity is encouraged – all within a modern, award-winning working environment. Our motto: We work for tomorrow. Join us!

The Institute of Mathematics and Scientific Computing is looking for a
University Assistant with doctorate (m/f/d)
https://jobs.uni-graz.at/ausschreibung/en/?jh=4835admw2kc0d4ax0iqs8h3nok3g91c
40 hours a week
fixed-term employment for 6 years*
position to be filled as of now

Your duties

- Research in the field of applied mathematics with emphasis on the analysis and the numerics of problems in mathematical image processing, inverse problems and data sciences
- Collaboration in interdisciplinary cooperation projects and third-party funded projects
- Independent teaching of courses in the field of applied mathematics, supervision of students and holding of examinations
- Participation in organizational and administrative matters

Your Profile

- Doctoral degree in a mathematical branch of study
- Solid knowledge of one of the following fields: mathematical methods in image processing, inverse problems, numerical algorithms for imaging and inverse problems
- Knowledge in one or more of the following fields: functional analysis, continuous mathematical optimization, regularization theory, parameter identification with partial differential equations, geometric measure theory, mathematical data science (desirable)
- Ability for integration into the institute's research profile and in particular into interdisciplinary cooperation projects
- Ability to teach in german language
- Capacity for teamwork, organizational talent and ability to communicate

Our Offer

Classification
Salary scheme of the Universitäten-KV (University Collective Agreement): B1

Minimum Salary
The minimum salary as stated in the collective agreement and according to the classification scheme is EUR 4.061,50 gross/month (for full-time employment). This minimum salary may be higher due to previous employment periods eligible for inclusion and other earnings and remunerations.

We offer you a job with a lot of responsibility and variety. You can expect an enjoyable work climate, flexible work hours and numerous possibilities for further education and personal development. Take advantage of the chance to enter into a challenging work environment full of team spirit and enthusiasm for your job.

Application deadline: 09.11.2022

The University of Graz strives to increase the proportion of women in particular in management and faculty positions and therefore encourages qualified women to apply.

Especially with regard to academic staff, we welcome applications from persons with disabilities who meet the requirements of the advertised position.

Applicants with proof of COVID-19 vaccination will be given preference if equally qualified. For further information, please refer to our general application regulations, at https://jobs.uni-graz.at/en/FAQ/

* Please note the limitations of § 109 UG (university act), especially in the case of short contract terms. For further information, please refer to our general application regulations, at https://jobs.uni-graz.at/en/FAQ/

For further information or questions, please contact:
Iva Matijevic
iva.matijevic@uni-graz.at
+43 316 / 380 - 1196

Please note that in order to comply with the applicable data protection regulations, we can only accept applications via our web-based applicant tool for this vacant position.

From: Idoia Hernandez recruitment@bcamath.org [via NADIGEST]
Date: October 13, 2022
Subject: Postdoc Position, DL for Structural Health Monitoring, IA4TES

Basque Center for Applied Mathematics is offering a Postdoctoral position to work in Deep Learning for Structural Health Monitoring in the framework of IA4TES project (Inteligencia Artificial para la Transicion Energetica Sostenible) with Dr David Pardo and Dr Vincenzo Nava in MATHDES group at BCAM. The researcher will work in Deep Learning, Structural Health Monitoring and Inverse Problems.

Deadline: 27 October 2022
Applications at:
https://urldefense.com/v3/__http://www.bcamath.org/en/research/job/ic2022-09-postdoctoral-fellow-on-deep-learning-for-structural-health-

monitoring__;!!HXCxUKc!wP_E2KTmDdEZg12j6wTvap0uc3yjaDbRCf-d0ncE28PUADfK11ipSGFkkYr-9gmKu-HyJicFOeFtUujqLDZKOPt5S7Bputk3VDA$
Contract: 1 year with possible extension

Requirements: Applicants must have their Ph.D. completed or defended in an area of sciences before the contract starts

Skills: Good interpersonal skills. Fluency in spoken and written English. A proven track record in quality research, as evidenced by research publications in top scientific journals and conferences. Demonstrated ability to work independently and as part of a collaborative research team. Ability to present and publish research outcomes in spoken (talks) and written (papers) form. Ability to effectively communicate and present research ideas to researchers and stakeholders with different backgrounds, including industrial partners. Project proposal writing skills.

The preferred candidate will have: Strong background in Deep Learning techniques for Structural Health Monitoring. Understanding on the existing works on using Deep Learning techniques for Structural Health Monitoring. Background in Inverse Problems. Good programming skills in Python and preferably, also Tensorflow. Interest and disposition to work in interdisciplinary groups.

From: noreply@iopscience.org <noreply@iopscience.org>
Sent: Thursday, October 13, 2022
Subject: Inverse Problems, Volume 38, Number 8, August 2022

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https://iopscience.iop.org/issue/0266-5611/38/8
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IPNet Digest Volume 29, Number 15 October 31, 2022

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

Today's Topics:

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: IPIA office <ipia@gwdg.de>
Sent: Sunday, October 30, 2022
Subject: call for nominations for next Executive Committee of IPIA

The Executive Committee (EC) of the Inverse Problems International Association (IPIA) is calling for nominations of candidates to stand for election to the EC of IPIA for the next term.

About the election procedure
The EC of IPIA is composed of 12 members who will be elected by a secret ballot voting. Each Ordinary Member of IPIA who paid their membership fees is eligible to vote. To join IPIA, please visit http://www.ipia.site/Membership/. In the ballot for the election of the EC, voters may write 12 or less names in a ballot list. The officers, i.e. President, Vice-President, Secretary, and Treasurer will be elected by the members of the new EC.

Requirements for nominations

1. The nominee must be an Ordinary Member of IPIA.
2. Each Ordinary Member is eligible to file a nomination with the office of IPIA. The nomination consists of an individual recommendation giving: a) the name and affiliation of the nominee b) a short bio which must include at least the year of PhD degree, current position and research interests.
3. The individual recommendation must be accompanied by signatures of ten further Ordinary Members of the Association and a letter of consent to stand for election to the EC signed by the nominee. Members who have submitted written consent to be listed on our website can be found at http://ipia.site/Member-List/. The signatures can be collected as hard copy or in some form of electronic signatures.
4. Nominations may either be sent by email to ipia@gwdg.de or in hard copy to IPIA e.V., c/o Institut für Numerische und Angewandte Mathematik, Lotzestr. 16-18, 37073 Göttingen, Germany.

Deadline
The deadline for receiving the nominations is December 11, 2022

We hope to receive a larger number of nominations representing all the continents!

Fioralba Cakoni (Secretary of IPIA)

From: Paul Ledger <p.d.ledger@keele.ac.uk>
Sent: Thursday, October 20, 2022
Subject: Workshop on Rich and Nonlinear Tomography in Radar, Astronomy and Geophysics at The University of Cambridge 30 January 2023 to 3 February 2023

Francis Watson and Bill Lionheart from The University of Manchester and myself will be organising a workshop on Rich and Nonlinear Tomography in Radar, Astronomy and Geophysics at The University of Cambridge 30 January 2023 to 3 February 2023.

The workshop will investigate challenges across radar, astronomy and geophysics including:

* The use of rich multi-dimensional data: what should one collect to best extract the information of interest about an object, and can does this inform inverse problems methods;

* Practical solutions to the large-scale, non-linear inverse problems which arise. Optimisation methods often need to deal with non-smooth objective functions arising from a choice of regularisation, and Bayesian methods need to efficiently sample across multiple length scales. The size of data is rising faster than computation power, so we must be smarter in our processing methods;

* Analytical and geometrical techniques to understand uniqueness and stability, helping us understand what a-priori information is needed to stabilise a problem and admit robust solutions;

* Numerical methods to efficiently simulate data the for many similar objects or scenes which arise in computational inverse problems as the solution space is searched; and,

* The development of shared software platforms reflecting the underlying general structure of the mathematical problems, as well as sharing of representative datasets.

To find out more and to register see https://www.newton.ac.uk/event/rntw01/

[Note: Application deadline is 04 Nov 2022.]

Submitted by:
Paul Ledger
Professor of Computational Mathematics
School of Computer Science & Mathematics
Keele University
p.d.ledger@keele.ac.uk
https://pdledger.wordpress.com

From: Albert Cohen albert.cohen@sorbonne-universite.fr [via NADIGEST]
Date: October 20, 2022
Subject: Foundation of Computational Mathematics, France, Jun 2023

The Foundation of Computational Mathematics 2023 conference will take place in Paris, France, from June 12 to 21, 2023, at the International Conference Center of Sorbonne Universite, Paris, France.

We hope that you will join this in-person event. Detailed information can be found on https://urldefense.com/v3/__https://focm2023.org__;!!HXCxUKc!ySDaPaIgyBdMIY0-YzwD7NuDu_9iio-xE6PQztauXbsMvVbOw1qGKyNn8tfdB-o9vXK2ggJx55DZEVcmdcxeQbbvP7LybDPYph4$

Opening of registration: November 7, 2022.
End of early bird registration: April 23, 2022

Workshops: Multiresolution and Adaptivity in Numerical PDEs; Computational Number Theory; Graph Theory and Combinatorics; Computational Geometry and Topology; Geometric Integration and Computational Mechanics; Foundations of Data Assimilation and Inverse Problems; Stochastic Computation; Computational Dynamics; Continuous Optimization; Real-Number Complexity; Foundations of Data Science and Machine Learning; Random Matrices; Computational Algebraic Geometry; Computational Harmonic Analysis and Data Science; Numerical Linear Algebra; Approximation Theory; Computational Optimal Transport; Foundations of Numerical PDEs; Information-Based Complexity; Symbolic Analysis; Special Functions and Orthogonal Polynomials.

FoCM conferences are usually organized as follows: mornings are devoted to plenary talks and afternoons to the workshops, which are run in parallel with lectures upon invitations. The conference is divided in three periods of three days, and each workshop is held during one of these periods. The spirit of FoCM is that participants are encouraged to come to the whole duration of the conference, and attend talks in different workshops. Poster sessions are also organized by each workshop. The call for poster submission will begin in early 2023.

From: Grady Wright <gradywright@boisestate.edu>
Sent: Friday, October 28, 2022
Subject: Tenure Track Position in Data Science at Boise State University

The Department of Mathematics at Boise State University invites applications for a tenure-track position in data science (broadly interpreted) at the rank of assistant professor starting in fall 2023. Applicants should have strong research potential in statistical computing, optimization, numerical linear algebra, or mathematical foundations of data science or machine learning. Particular interest is in applicants with interdisciplinary connections to data-driven applications, especially those involving the environment.

Boise State's innovative transdisciplinary approach to research and education has driven its meteoric rise to an R2 university. The Mathematics Department is a leader in data science efforts at both the undergraduate and graduate levels and is an essential contributor to the new School of the Environment (SoE).

Boise State is located in Idaho's capital city and largest metropolitan area, which serves as the government, business, high-tech, economic, and cultural center of the state. Boise offers a great quality of life: a family friendly culture, a vibrant downtown, and great outdoor recreation activities. To further enhance the quality of life Boise offers, the university has committed to sustaining the conditions necessary for faculty to enter and thrive in their academic careers while meeting personal and family responsibilities.

For more details on the position and to apply see https://www.mathjobs.org/jobs/list/21283. Applications received by December 7, 2022 will be given full consideration.

Submitted by:
Grady B. Wright
Professor, Dept. Mathematics
Co-Director, PhD in Computing
Boise State University

From: Michael Friedlander michael.friedlander@ubc.ca [via NADIGEST]
Date: October 19, 2022
Subject: Assistant Professor Position, Univ of British Columbia, Canada

The Department of Mathematics at the University of British Columbia seeks candidates for a tenure-track Assistant Professor position, to start July 2023.

We seek candidates with expertise in the mathematics of machine learning and artificial intelligence. Topics of interest include neural nets, statistical learning theory, inverse problems, optimization, mathematical data science, mathematics of information, and related fields. Applicants' research should have strong theoretical and interdisciplinary components with a focus on AI methods.

Applicants are expected to hold a PhD or equivalent in mathematics or a related discipline. Postdoctoral experience is normally expected.

Applications should be submitted through the AMS MathJobs https://urldefense.com/v3/__https://www.mathjobs.org/jobs/UBC/__;!!HXCxUKc!ySDaPaIgyBdMIY0-YzwD7NuDu_9iio-xE6PQztauXbsMvVbOw1qGKyNn8tfdB-o9vXK2ggJx55DZEVcmdcxeQbbvP7LyKRklW8c$

From: Mingchao Cai cmchao2005@gmail.com [via NADIGEST]
Date: October 20, 2022
Subject: Postdoc Position, Computational Math, Morgan State Univ

A postdoctoral position in Computational Math is available at Morgan State University in the department of Mathematics. The work involves Finite element methods and numerical analysis for fluid flow, structure mechanics, poroelastic models, inverse problems, or machine learning. Candidates should have a Ph.D degree in Computational Mathematics or Mechanical/Civil Engineering with a background in

Finite Element methods, high-performance computing, fluid mechanics, and/or structure mechanics. The position is available now and is expected to be filled as soon as possible. The benefit includes a regular salary plus insurance (charged by Morgan State University). The initial contract will be 1 year, with a possible renewal of the 2nd year. The candidate will be supported by NSF grants and a grant from the Army Research office. The earliest possible starting date is Mar. 1st, 2023. The review will start this December. Application Submission through the HR website will be required.

Interested candidates should contact Professor Mingchao Cai (see address below) with a CV and a description of their background and research interests.

Professor Mingchao Cai
Department of Mathematics
Morgan State University
1700 E Cold Spring Ln, Baltimore, MD, 21251
E-mail: Mingchao.Cai@morgan.edu

From: Emil Constantinescu emconsta@mcs.anl.gov [via NADIGEST]
Date: October 27, 2022
Subject: Postdoc Position, Computational Statistics, Probability, ML, Argonne

We seek a postdoctoral candidate with a strong background in computational statistics and uncertainty quantification to develop robust and effective algorithms for solving stochastic inverse problems in quantum chromodynamics and nuclear tomography.

The incumbent will be part of a large team of applied mathematicians, statisticians, computational scientists, and nuclear physicists under the QuantOm collaboration project: https://urldefense.com/v3/__https://www.anl.gov/phy/quantom__;!!HXCxUKc!zkUzuB26xbDxIpyml2dfBj4s9x2hbd1mksuYSV0GI_HpCbKtis8oRHUiGl9HEoz1s36_eROyRzeRZwWjVkFAA2Bonmpo_5AP0Jk$. The work involves sample-based probability distribution learning and spans computational statistics, machine learning, uncertainty quantification, and numerical analysis.

Position Requirements: Recent or soon-to-be completed Ph.D. (typically completed within the last 0-3 years) in statistics, probability, applied mathematics, or another scientific or engineering field with a strong emphasis on solving inverse problems and uncertainty quantification.; practical verbal and written communication skills; a mixture of experience and interest in learning the following topics: Inference-based computational statistics: Bayesian & likelihood methods, high dimensional sampling, computational and variational inverse problems, dimension reduction and statistical analysis of high-dimensional datasets. Other desired but not required knowledge include statistical testing, goodness-of-fit tests, probability coverage, ML with a strong emphasis on variational, probabilistic and statistical ML approaches, normalizing flows, generative modeling, Optimal transport, and distance metrics. Python code development and

devops, such as git and CI/CD, are a plus.

Applications and a detailed description, including qualifications for
different research tracks, are found at
[https://urldefense.com/v3/__https://tinyurl.com/bdee2aej__;!!HXCxUKc!zkUzuB26xbDxIpyml2dfBj4s9x2hbd1mksuYSV0GI_HpCbKtis8oRHUiGl9HEoz1s36_eROyRzeRZwWjVkFAA2Bonmpovygd0_4$].

From: noreply@iopscience.org
Date: October 21, 2022
Subject: Inverse Problems, Volume 38, Number 10, October 2022

Inverse Problems October 2022 Volume 38, Number 10
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Govanni Granados and Isaac Harris

Joint Gaussian dictionary learning and tomographic reconstruction
Gustav Zickert, Ozan Öktem and Can Evren Yarman

Gradient flow structure and convergence analysis of the ensemble Kalman inversion for nonlinear forward models
Simon Weissmann

https://iopscience.iop.org/issue/0266-5611/38/10
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IPNet Digest Volume 29, Number 16 November 14, 2022

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

Today's Topics:

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: IPNet
Sent: Monday, November 14, 2022
Subject: IMPORTANT IPNet Changes -- Re-subscription Required

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*** Important IPNet Changes: Re-subscription Required ***
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As we approach 30 years of hosting by Michigan State University, we announce that the IPNet will soon be moving under the umbrella of the Inverse Problems International Association (IPIA), with initial hosting generously provided by the Finnish Inverse Problems Society (fips) and the University of Helsinki.

The goals of the IPNet remain unchanged, and subscriptions will continue to be free.

However, YOU MUST RE-SUBSCRIBE in order to continue to receive the IPNet Digest. To do so, please fill out the form at

https://elomake.helsinki.fi/lomakkeet/120750/lomake.html

Resubscriptions ensure email addresses are current for all subscribers. Please note that the original web-based IPNet subscriber directory will be discontinued for reasons of privacy.

Until the transition is complete, submissions to the IPNet Digest may be sent as usual to ipnet-digest@math.msu.edu.

From: Marcella Bonazzoli <marcella.bonazzoli@inria.fr>
Sent: Thursday, November 3, 2022
Subject: PhD position offer [OptiGPR3D]

A PhD position on "Numerical methods and high performance simulation for 3D imaging in complex media" is available at Inria Saclay Centre at Institut Polytechnique de Paris (Palaiseau, France).

This PhD is part of the OptiGPR3D exploratory action (https://www.inria.fr/en/optigpr3d) led by IDEFIX and POEMS research teams at Inria Saclay Centre (https://www.inria.fr/en/inria-saclay-centre), in collaboration with EDF (https://www.edf.fr/en/the-edf-group/inventing-the-future-of-energy/r-d-global-expertise). Its objective is to introduce versatile and robust simulation tools that can adapt to complex materials while remaining efficient, in the perspective of making 3D electromagnetic imaging feasible and certifiable through interpretable and optimized inversion methods.

Candidates should have a 2nd year Master's degree (or equivalent), with skills in numerical analysis (PDE, finite element method, linear algebra ...) and programming (e.g. C/C++, Python,...).

For more details on the position and the instructions to apply, see
https://uma.ensta-paris.fr/idefix/documents/these_AEx_en.pdf
Supervisors' email address: aex-optigpr3d-phd@inria.fr

Thank you in advance,
best regards,

Marcella Bonazzoli, Xavier Claeys, Pierre Marchand

From: Per Christian Hansen <pcha@dtu.dk>
Sent: Friday, November 4, 2022
Subject: Postdoc position, Computational UQ, Technical Univ. of Denmark

The Technical University of Denmark opens a 2-year Postdoc position starting February 2023. It is part of the research project CUQI: Computational Uncertainty Quantification for Inverse problems https://sites.dtu.dk/cuqi.

We create a platform for modeling and computations needed to apply UQ to a range of inverse problems. This position focuses on further development of our package CUQIpy https://cuqi-dtu.github.io/CUQIpy and the underlying computational methods.

You will join the developer team and play an integral role in expanding CUQIpy to support an even wider range of inverse problems and UQ analyses. You will interact with the CUQI team to ensure that our theory and methods are put into optimal use. Responsibilities include:
- Design, abstraction & implementation of Bayesian inversion methods.
- Acceleration of computations (using structureand parallelization).
- Development of high-level user interfaces for non-experts.
- Support and training of CUQIpy users.
- Co-supervision of MSc and PhD students.

CUQIpy is developed in a highly collaborative GitHub-centered workflow with regular programming sessions, code reviews, sprints, and hackathons. We offers rich opportunities to build a profile in scientific software development and computational UQ for inverse problems.

For more details and to apply (deadline December 12, 2022), see:
https://www.dtu.dk/english/about/job-and-career/vacant-positions/job?id=079d614a-74bf-4946-912d-04b8871f47bb

Per Christian Hansen and Jakob Sauer Jørgensen

Submitted by:
Professor Per Christian Hansen
Villum Investigator
Section for Scientific Computing
DTU Compute - Technical University of Denmark
Tel +45 23.65.27.98
Homepage: http://people.compute.dtu.dk/pcha/
LinkedIn: https://www.linkedin.com/in/per-christian-hansen-23bb55209/
CUQI project: https://sites.dtu.dk/cuqi

From: Thomas Schuster <thomas.schuster@num.uni-sb.de>
Date: November 10, 2022
Subject: Professorship for Applied Mathematics at Saarland University

With numerous research institutes on campus and targeted support of collaborative projects, Saarland University provides an ideal environment for innovation and technology transfer. The Department of Mathematics at Saarland University encompasses the full spectrum of mathematics and forms a joint faculty with the Department of Computer Science, with which it collaborates closely.

The Department of Mathematics is inviting applications for the following tenure-track position commencing at the earliest opportunity:

Professorship (W2 with tenure track to W3) for Applied Mathematics
(m/f/x; reference number W2177)

This position will initially be a fixed-term public sector position (‘Beamtenverhältnis auf Zeit’) for a maximum of six years. If after completing the quality-assured evaluation process the appointee has demonstrated excellence in teaching and research, the position will be upgraded to a permanent professorship at the W3 salary grade (tenured full professorship).

The successful candidate will have exceptional research and teaching skills, international visibility and a research focus in numerics; additional knowledge in scientific computing or mathematical modelling is welcome. The candidate will complement existing activities in applied mathematics and demonstrate potential for collaboration. The person appointed will also be expected to have experience in the acquisition of third party funded projects, independently acquire external funding and to be willing to contribute to joint research proposals to strengthen the department, faculty and university. Teaching duties cover the full range of courses for mathematics students (including those studying for teaching qualifications) as well as service courses for other departments. Courses are taught in German and English.

At Saarland University, we view internationalization as a process that spans all aspects of University life. We therefore expect members of our professorial staff to engage in activities that promote and foster further internationalization. Special support will be provided for collaborative work with existing international partners such as the ‘European University Transform4Europe’ and the ‘University of the Greater Region’, which we would like to further develop.

The appointments will be made in accordance with the general provisions of German public sector employment law. Candidates must have experience in and an aptitude for academic teaching. They will have a PhD or doctorate in an appropriate subject and will have demonstrated a proven track record of independent academic research (e.g. as a junior or assistant professor, or by having completed an advanced, post-doctoral research degree (Habilitation) or equivalent academic activity at a university or research institution).

In accordance with the objectives of its affirmative action plan, Saarland University is actively seeking to increase the proportion of women in professorial positions and applications from qualified female candidates are therefore strongly encouraged. Preferential consideration will be given to disabled candidates of equal eligibility.

To apply for this position, please submit your application no later than December 2, 2022 via Saarland University's online applications portal: www.unisaarland.de/berufungen. Please complete the online synopsis (brief applicant profile) and upload your completed application documents as a single PDF file (max. size: 10 MB). Please include the following: a letter of application, which should be addressed to the Dean of the Faculty of Mathematics and Computer Science, Prof. Jürgen Steimle, and should include your private address, phone number and email, your CV/résumé including details of academic teaching duties and research history, a complete list of publications, a statement of your previous and planned research and teaching activities, your record in acquiring external funding, and electronic copies of your certificates. For questions about this position, please contact Prof. Roland Speicher (email: speicher@math.unisb.de).

When you submit a job application to Saarland University you will be transmitting personal data. Please refer to our privacy notice for information (www.unisaarland.de/en/privacy.html) on how we collect and process personal data in accordance with Art. 13 of the General Data Protection Regulation (GDPR). By submitting your application, you confirm that you have taken note of the information in the Saarland University privacy notice.

See the full notice here: https://www.uni-saarland.de/fileadmin/upload/verwaltung/stellen/Wissenschaftler/W2177_EN_W2TTW3_Angewandte_Mathematik.pdf

Submitted by:
Univ.-Prof. Dr. Thomas Schuster
Full Professor for Numerical Mathematics
Vice President of the Society for Inverse Problems (GIP e.V.)
Department of Mathematics
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Fax: +49 (0)681 302 4435
Web: https://urldefense.com/v3/__https://www.uni-saarland.de/lehrstuhl/schuster/__;!!HXCxUKc!yhRyB5gwjz-7wIdxw6q0g1Usue8AHC64VarXj32km8DFP7zzZGEsaqH3dKPxhKlImiv_LiuXKIru2CJk2v-YT0Hx2BLL8YmV$

From: Mikhail Klibanov <mklibanv@uncc.edu>
Sent: Tuesday, November 8, 2022
Subject: Congratulations IOP Publishing. Here's your Top Cited Paper Awards China 2022 certificate and badge!

From IOP Publishing:

Here is your Top Cited Paper Awards China 2022 Credential.

Congratulations Michael V Klibanov on being awarded an IOP Publishing Top Cited Paper Award for your article Convexification of electrical impedance tomography with restricted Dirichlet-to-Neumann map data.

This noteworthy achievement signifies that your research is featured in the top 1% of the most cited papers in your subject category. And that it is also one of the most cited articles collaborating with China, published across the entire IOP Publishing journal portfolio within the past three years (2019 to 2021).

Please visit our awards webpage https://ioppublishing.org/china-top-cited-author-award/?utm_campaign=topcitedpaperchina2022&utm_medium=referral&utm_source=accredible to find the full list of the top cited papers.

Submitted by:
Mikhail V. Klibanov
Link to my recently published book:
https://www.degruyter.com/document/doi/10.1515/9783110745481/html
Ph.D. and Doctor of Science in Mathematics
Professor
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IPNet Digest Volume 29, Number 17 December 1, 2022

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

Today's Topics:

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

Information about IPNet:
https://ipnet.math.msu.edu/

From: IPNet
Sent: Monday, November 14, 2022
Subject: IMPORTANT IPNet Changes -- Re-subscription Required

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*** Important IPNet Changes: Re-subscription Required ***
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Reminder: The IPNet will soon be moving under the umbrella of the Inverse Problems International Association (IPIA), with initial hosting generously provided by the Finnish Inverse Problems Society (fips) and the University of Helsinki. More information may be found in the IPNet Digest mailed out on November 14, 2022.

Subscriptions will continue to be free, however you will need to resubscribe in order to continue to receive the IPNet Digest. If you have not already done so, please fill out the form at https://elomake.helsinki.fi/lomakkeet/120750/lomake.html

Until the transition is complete, submissions to the IPNet Digest may be sent as usual to ipnet-digest@math.msu.edu.

From: Pereyra, Marcelo <M.Pereyra@hw.ac.uk>
Sent: Friday, November 25, 2022
Subject: Workshop "Interfacing Bayesian statistics, machine learning, applied analysis for blind and semi-blind imaging inverse problems"

Dear colleagues,

It is my pleasure to let you about the upcoming workshop "Interfacing Bayesian statistics, machine learning, applied analysis, and blind and semi-blind imaging inverse problems", which will take place from January 24 to January 26, 2023, at the ICMS in Edinburgh, UK.

This 3-day workshop will focus on interactions between Bayesian statistics, machine learning, and applied analysis, in the context of imaging sciences, with special attention to imaging inverse problems that are blind or semi-blind. The aim is to bring together a group of world-leading experts and rising early career researchers to discuss recent developments in these fields and open challenges, with a focus on ideas that develop at the fertile interface where the three frameworks meet. We have decided to structure the workshop around small topical poster sessions and to have one 2-hour tutorial each morning. This structure allows all participants to have plenty of time for discussion between participants and there will be space for you to sit down, chat, and work.

You can find more information about this workshop and instructions to apply in the link below.
https://www.icms.org.uk/workshops/2023/interfacing-bayesian-statistics-machine-learning-applied-analysis-and-blind-and-semi

The workshop is kindly supported by the UK research council EPSRC, via the EPSRC projects "Bayesian model selection and calibration for computational imaging" (EP/T007346/1) and "Learned Exascale Computational Imaging" (EP/W007673/1, EP/W007681/1).

Best wishes,
Marcelo Pereyra (on behalf of the organisation team)

Dr Marcelo Pereyra | Associate Professor in Statistics | Maxwell Institute for Mathematical Sciences & School of Mathematical and Computer Sciences Heriot-Watt University
Room CM T.17 | Colin Maclaurin Building | Heriot-Watt University | Edinburgh EH14 4AS | United Kingdom
Email: m.pereyra@hw.ac.uk | Telephone: +44 (0) 131 451 3211 | Web site: http://www.macs.hw.ac.uk/~mp71/

From: Roland Herzog <roland.herzog@iwr.uni-heidelberg.de>
Sent: Tuesday, November 29, 2022
Subject: Conference: 6th European Conference on Computational Optimization (EUCCO), Sep 2023, Heidelberg

Dear colleagues,

it is a great pleasure to announce that we will be organizing the

6th European Conference on Computational Optimization (EUCCO)
September 25-27, 2023
Heidelberg University, Germany
https://urldefense.com/v3/__https://tinyurl.com/eucco2023__;!!HXCxUKc!26mQAlbZD5ZwEOvTiqCysRzDPHxdNLvM1oY3rT_Kxz4nANpj4IPZIu0zqWkGhiBL3zXMAndDvLvw5O8EVEwPXVKcfB9rtV7M644ixGWCo18$

As with previous EUCCO events, the program will consist of thematic focus sessions (with solicited and contributed talks) as well as invited plenary presentations. The preliminary list of focus sessions is

* Optimization and Machine Learning
* Nonsmooth Optimization
* Optimization under Uncertainty
* Inverse Problems
* Optimization on Manifolds
* Optimal and Feedback Control of PDEs
* Shape and Topology Optimization
* Model-Order Reduction for Optimization
* Mixed-Integer Optimization
* Optimization in Applications

Due to the generous support by various sponsors, we will be able to offer travel support for young researchers upon request. The details are available on the web page.

Important dates:

* Jan 31, 2023: submission of abstracts opens
* May 31, 2023: submission of abstracts close
* May 31, 2023: travel support applications close
* June 16, 2023: acceptance notifications for talks and travel support
* June 30, 2023: registration opens

We hope to see you in Heidelberg in September 2023!

Best regards,
Roland Herzog

From: Carola-Bibiane Schönlieb <cbs31@cam.ac.uk>
Sent: Thursday, November 17, 2022
Subject: Research associate positions in Machine Learning for Scientific Imaging in Cambridge, UK

Fixed Term positions exist for two Research Assistants/Associates working in the Department of Applied Mathematics and Theoretical Physics (DAMTP) and the Department of Physics, connected to the Accelerate Programme for Scientific Discovery.

The Accelerate Programme for Scientific Discovery is a high-profile Cambridge University initiative promoting the use of machine learning to tackle major scientific challenges. Working across disciplines within the University, Accelerate is advancing research at the interface of AI and science, providing training in data science for science, and building a community of research and practice.

We are inviting applications for Research Assistants/Associates to join Accelerate. We are looking for candidates who are passionate about advancing science through machine learning and about helping other researchers do the same. Successful candidates will be responsible for developing research projects and contributing to the Programme's community-building activities.

These posts will be based in either DAMTP or the Department of Physics, with candidates working with the following supervisors: - With Professor Carola-Bibiane Schönlieb (DAMTP), working on inverse problems and image analysis for scientific research challenges. - With Dr Sarah Teichmann FMedSci FRS (Physics), working on the application of machine learning methods to biological datasets.

The roles are offered on a fixed term basis for two years. We strongly encourage candidates to review the Supervisor profile pages and their associated research group to learn more about current research projects and opportunities. The successful applicants will be expected to have: - A PhD in a relevant specialist subject; - Research experience in a relevant discipline, demonstrating sufficient specialist knowledge and methods to work within established research programmes; - Experience of working in interdisciplinary environments and strong motivation to apply AI for scientific discovery; - Organisational skills and the ability to manage their own workload; - Communication skills and the ability to communicate research clearly to diverse stakeholders; - Relationship-building skills and the ability to work in multidisciplinary teams.

Application deadline is the 5th of December 2022.

If you want to know more about these positions and how to apply please visit https://urldefense.com/v3/__https://www.jobs.cam.ac.uk/job/36949/__;!!HXCxUKc!0ro_z_-74HWPRSlPlm_UmBJq5CBlZld9q4jXvG7HhDp_z0Hwecmyj_OiR1zZnfcoLVvNy-jf8Jh8QJGGrAqKQj8$

If you have specific questions concerning the research remit of these positions please email Carola-Bibiane Schönlieb at schoenlieb-pa@maths.cam.ac.uk

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From: Simon Hubmer <simon.hubmer@ricam.oeaw.ac.at>
Sent: Friday, November 18, 2022
Subject: Job Openings at RICAM Linz, Austria

There are currently two new researcher positions (PhD/Postdoc) announced
at the Johann Radon Institute (RICAM) Linz, Austria.

The offers can be found on the official homepage (Transfer
Group): https://urldefense.com/v3/__https://www.oeaw.ac.at/ricam/institute/jobs__;!!HXCxUKc!xbWvZDCHhJV3h9tzIykb6XkjRNVqOgQYqM_kSKTYXGPLJP0a9ZYqprQnMkW-WWNO_s3_xD0Vms_2pJtCDorv_8Jnyo-Whoi0wYNs$

With best regards,
Simon Hubmer

From: Simon Arridge <S.Arridge@cs.ucl.ac.uk>
Sent: Tuesday, November 22, 2022 6:57 AM
To: IPNet <ipnet@math.msu.edu>
Cc: Arridge, Simon <s.arridge@ucl.ac.uk>
Subject: Professor of Inverse Problems at University College London

Opening for a full professorship in Inverse Problems at UCL

Details including application portal is here :
https://urldefense.com/v3/__https://www.ucl.ac.uk/work-at-ucl/search-ucl-jobs/details?jobId=2593&jobTitle=Professor*20of*20Inverse*20Problems.__;JSUl!!HXCxUKc!0VpIOUjq6-YiRA8HdKigHPk-73joIPtUoKkII7RONFYMY1sWST7Y_VQQjU_N9ESnDOZZEVvwwkOtTGoVRN4$

About us:

UCL is one of the top-rated research institutions in the world, and currently the top recipient of Horizon 2020 funding in Europe. As of 2021, 30 Nobel Laureates and 3 Fields Medalists were UCL affiliates. At UCL Computer Science, we are committed to supporting and promoting equity, diversity and inclusion. We believe in inspiring, empowering and engaging people from all backgrounds,

cultures, identities and abilities and creating fair opportunities for all our students and staff members. Equity, diversity, and inclusion is a central pillar of our department's ethos, and we take active measures to promote the value of different identities, create an organisational culture that is respectful and inclusive, and recognize and remove barriers to opportunities so that everyone can thrive in our environment.

About the role:

The main purpose of this new role is to support the growth of the Computer Science Department and the Inverse Problems area through conducting research, teaching, outreach and entrepreneurial activities in areas related to Vision and Imaging Science. The applicant will have a PhD in Computer Science, Mathematics, Engineering, Physical Sciences or a related field by the start of the appointment. They will have an outstanding international reputation in inverse problems with an appropriate track record in publication and other dissemination activities, graduation of PhD students, and in attracting funding in competitive bids.

From: Martin Holler <martin.holler@uni-graz.at>
Sent: Friday, November 25, 2022
Subject: Faculty Position in Machine Learning and Inverse Problems at University of Graz, Austria

Dear Colleagues,

I would like to draw your attention to the following job announcement
for a faculty position at the University of Graz, Austria.

Best regards,

Martin Holler

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The Institute of Mathematics and Scientific Computing at the University
of Graz is filling a

*** 6-year faculty position in the research group "Mathematics of Data
Science" ***

The research focus of this position is on mathematical foundations and
interdisciplinary applications of machine learning and inverse problems.

Benefits of the position include:

- Close integration into a well-established, interdisciplinary
cooperation network of several research groups in Graz working in the
areas of Inverse Problems, Machine Learning, Optimization and Medical
Image Processing

- High degree of autonomy; possibility to conduct independent research,
to apply for third-party funding, to teach courses, and to supervise theses

- Part of an active research group working on both mathematical
foundations and concrete applications with interdisciplinary cooperation
partners, e.g., from biomedical imaging, neuropsychology or emergency
care medicine

More details can be found at
https://urldefense.com/v3/__https://jobs.uni-graz.at/ausschreibung/en/?jh=yk9sbh8t8zv2tpiffs282b4vmwmgxmm__;!!HXCxUKc!0XnSmse4E3bI95KwPxuG8ShazUGXuaJ9rljOz6N-XwIsNhEDPox0X3mI128au1Sy_Wt--NbiXmtVeWZ4PIL_mJeatiLGBERcEds$

Application Deadline: December 21, 2022

Submitted by:
Martin Holler
Institute of Mathematics and Scientific Computing
University of Graz
Heinrichstraße 36 A-8010 Graz
Tel.:+43 316 380 5156
Mail: martin.holler@uni-graz.at
Web: https://urldefense.com/v3/__http://imsc.uni-graz.at/hollerm__;!!HXCxUKc!0XnSmse4E3bI95KwPxuG8ShazUGXuaJ9rljOz6N-XwIsNhEDPox0X3mI128au1Sy_Wt--NbiXmtVeWZ4PIL_mJeatiLGrGWt6yw$

From: Lothar Reichel <reichel@math.kent.edu>
Sent: Saturday, November 26, 2022
Subject: ToC, Electron. Trans. Numer. Anal., vol. 27

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https://etna.math.kent.edu/volumes/2021-2030/vol57/

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IPNet Digest Volume 29, Number 18 December 20, 2022

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

Today's Topics:

Submissions for IPNet Digest:

Mail to ipnet-digest@math.msu.edu

Information about IPNet:

https://ipnet.math.msu.edu/

From: IPNet
Sent: Monday, November 14, 2022
Subject: IMPORTANT IPNet Subscription Changes

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*** Important IPNet Subscription Changes ***

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The email you have received from Majordomo@helsinki.fi is legitimate. Its purpose is to notify you of the subscription changes which are occurring over the next couple of months for the IPNet.

As a reminder, the IPNet will soon be moving under the umbrella of the Inverse Problems International Association (IPIA), with initial hosting generously provided by the Finnish Inverse Problems Society (fips) and the University of Helsinki. More information may be found in the IPNet Digest mailed out on November 14, 2022.

Subscriptions will continue to be free.

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From: Manabu Machida <manabu.machida@gmail.com>
Sent: Monday, December 12, 2022

Subject: RIMS Workshop, January 2023

RIMS Workshop on Inverse Problems, Medical Imaging, and Related Topics

www.mmachida.com/RIMS2023/

Date: From January 10, 2023 to January 13, 2023
Venue: Research Institute for Mathematical Sciences (RIMS) at Kyoto University, Japan

This is a hybrid conference. So, online (Zoom) participation is also welcome.

Registration is necessary for both in-person and online participation
(by January 4, 2023):
www.mmachida.com/RIMS2023/

From: Pereyra, Marcelo <M.Pereyra@hw.ac.uk>
Sent: Tuesday, December 13, 2022
Subject: Fully funded PhD scholarships at Heriot-Watt University and the Maxwell Institute for Mathematical Sciences (Edinburgh, UK)

Dear all,

Every year Heriot-Watt University and the Maxwell Institute for Mathematical Sciences (Edinburgh, UK) advertise a number of fully funded PhD Scholarships.

Applications are open in any area of Pure and Applied Mathematics, including (but not restricted to) Algebra, Mathematical Physics, Analysis of PDEs, Inverse Problems, Uncertainty Quantification, Calculus of Variations, Probability, Stochastic Analysis, Numerical Analysis, Mathematical Biology and Ecology, Modelling, Actuarial Mathematics etc.

The deadline for applications is the 23rd of January 2023. We will accept applications also after this deadline, but the best chances are before January 23rd.

For information on our programmes, see the link below https://www.maxwell.ac.uk/graduate-school/

A description of the PhD projects offered by the HW research groups can be found here

https://www.hw.ac.uk/uk/schools/mathematical-computer-sciences/research/phd/phd-opportunities-in-mathematical-sciences.htm

We actively promote Equality, Diversity and Inclusion and welcome applications from all qualified applicants.

Best wishes,
Michela Ottobre (on behalf of Heriot-Watt University)

Submitted by:

Dr Marcelo Pereyra | Associate Professor in Statistics | Maxwell Institute for Mathematical Sciences & School of Mathematical and Computer Sciences Heriot-Watt University
Room CM T.17 | Colin Maclaurin Building | Heriot-Watt University | Edinburgh EH14 4AS | United Kingdom
Email: m.pereyra@hw.ac.uk | Telephone: +44 (0) 131 451 3211 | Web site: http://www.macs.hw.ac.uk/~mp71/

From: Moser, Melanie (melanie.moser@uni-graz.at) <melanie.moser@uni-graz.at>
Sent: Wednesday, December 14, 2022
Subject: University Assistant with doctorate, Graz, Austria

At the University of Graz, researchers and students work across a broad disciplinary spectrum to enlarge our knowledge, and find strategies to deal with challenges our society is confronted with and to shape tomorrow's world. The University of Graz is a place which combines high quality academic research and teaching, where achievement is rewarded, careers are promoted, and social diversity is encouraged – all within a modern, award-winning working environment. Our motto: We work for tomorrow. Join us!

The Institute of Mathematics and Scientific Computing is looking for a

University Assistant with doctorate (m/f/d)

https://jobs.uni-graz.at/ausschreibung/en/?jh=4835admw2kc0d4ax0iqs8h3nok3g91c

40 hours a week

fixed-term employment for 6 years* position to be filled as of now

Your duties

- Research in the field of applied mathematics with emphasis on the analysis and the numerics of problems in mathematical image processing, inverse problems and data sciences
- Collaboration in interdisciplinary cooperation projects and third-party funded projects
- Independent teaching of courses in the field of applied mathematics, supervision of students and holding of examinations
- Participation in organizational and administrative matters

Your Profile

- Doctoral degree in a mathematical branch of study
- Solid knowledge of one of the following fields: mathematical methods in image processing, inverse problems, numerical algorithms for imaging and inverse problems
- Knowledge in one or more of the following fields: functional analysis, continuous mathematical optimization, regularization theory, parameter identification with partial differential equations, geometric measure theory, mathematical data science (desirable)
- Ability for integration into the institute's research profile and in particular into interdisciplinary cooperation projects
- Ability to teach in german language
- Capacity for teamwork, organizational talent and ability to communicate

Our Offer

Classification
Salary scheme of the Universitäten-KV (University Collective Agreement): B1

Minimum Salary

The minimum salary as stated in the collective agreement and according to the classification scheme is EUR 4.061,50 gross/month (for full-time employment). This minimum salary may be higher due to previous employment periods eligible for inclusion and other earnings and remunerations.

We offer you a job with a lot of responsibility and variety. You can expect an enjoyable work climate, flexible work hours and numerous possibilities for further education and personal development. Take advantage of the chance to enter into a challenging work environment full of team spirit and enthusiasm for your job.

Application deadline: 04.01.2023

The University of Graz strives to increase the proportion of women in particular in management and faculty positions and therefore encourages qualified women to apply.

Especially with regard to academic staff, we welcome applications from persons with disabilities who meet the requirements of the advertised position.

Applicants with proof of COVID-19 vaccination will be given preference if equally qualified. For further information, please refer to our general application regulations at https://jobs.uni-graz.at/en/FAQ/

* Please note the limitations of § 109 UG (university act), especially in the case of short contract terms. For further information, please refer to our general application regulations at https://jobs.uni-graz.at/en/FAQ/.

For further information or questions, please contact:

Iva Matijevic
iva.matijevic@uni-graz.at
+43 316 / 380 - 1196

Please note that in order to comply with the applicable data protection regulations, we can only accept applications via our web-based applicant tool for this vacant position.

From: Aretha Teckentrup <a.teckentrup@ed.ac.uk>
Sent: Thursday, December 15, 2022
Subject: Postdoc position in Bayesian inverse problems, University of Edinburgh

Dear all,

a postdoc position is available in my group in the School of Mathematics
at the University of Edinburgh, with starting date between April 1st and
October 1st 2023.

Application deadline is 5pm UK time on January 9th 2023.

More information on the position, and the application portal, are
available at the following link:

https://urldefense.com/v3/__https://elxw.fa.em3.oraclecloud.com/hcmUI/CandidateExperience/en/sites/CX_1001/job/5997__;!!HXCxUKc!3kqmMvRwSRh9kXz9Pu2SrA_M4lAtnsK2vxmiqgJxDnfROyMnwj7J7U8mlcFK-PKAU6_iPViZ6Noq07jzoxftraTfd_-1zio$

The topic of the research is generally Bayesian inverse problems and
emulators/surrogate models, but is somewhat flexible and could include
MCMC (e.g. delayed acceptance and pseudo-marginal methods), Gaussian
process regression in high dimensions (sparse grids/QMC points, weighted
kernels), deep Gaussian processes, or theoretical foundations of
randomised surrogate models and variance inflation.

I'm happy to answer any questions by email.

Best wishes,
Aretha

Submitted by:
Aretha Teckentrup
Reader in Mathematics of Data Science
School of Mathematics, University of Edinburgh
------ end -------