

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

Today's Topics:

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

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

Conference: Inverse Problems in Engineering (ICIPE 20)

Conference: Electromagnetic Field Computation (CEFC 2020), Deadline Extended

Postdoc: Multi-modality Imaging, Bath, UK

Postdocs: Remote Sensing and Machine Learning, Cambridge, UK

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Submissions for IPNet Digest:

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

Information about IPNet:

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

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From: OIPE 2020 <[oipe2020@zut.edu.pl](mailto:oipe2020@zut.edu.pl)>

Subject: OIPE 2020

Date: Saturday, September 14, 2019

Dear colleagues,

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

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

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

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

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

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

Jens Haueisen (Chairman), Germany

Marcin Ziolkowski, 16th Workshop Chairman

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From: Todd Quinto <[Todd.Quinto@tufts.edu](mailto:Todd.Quinto@tufts.edu)>

Subject: Inverse Problems Modeling and Simulation, 5/24-30, 2020

Date: Sunday, September 15, 2019

Dear Colleagues,

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

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

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

Sincerely,

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

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

Dear Colleagues,

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

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

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

Conference flyer:

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

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

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

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

Sincerely,

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

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

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

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

Dear colleague,

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

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

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

You can find all the upcoming news, guidelines and many more useful info at the conference website [www.cefc2020.org](http://www.cefc2020.org).

We are all looking forward to meeting you in Pisa

CEFC 2020 organising committee.

[www.cefc2020.org](http://www.cefc2020.org)  
[info@cefc2020.org](mailto:info@cefc2020.org)

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

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

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

Birmingham, Bath, UCL, Warwick and Diamond Light Source.

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

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

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

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

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

Dear All,

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

Thank you! and all the best,  
Carola Schönlieb

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

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

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

team for designing novel developments in machine learning for remote sensing data. For more information, please see the Further Particulars.

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

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

The successful candidates will have:

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

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

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

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

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

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

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

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

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



Expectation propagation for Poisson data  
Chen Zhang, Simon Arridge and Bangti Jin

Well posedness and convergence analysis of the ensemble Kalman inversion  
Dirk Blömker, Claudia Schillings, Philipp Wacker and Simon Weissmann

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

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