Volume 25, Number 04 IPNet Digest April 30, 2018 Today's Editor: Patricia (Patti) K. Lamm, Michigan State University Today's Topics: Chemnitz Symposium on Inverse Problems 2018 New Deadline: Workshop on Optimization and Inverse Problems in Electromagnetism IMA Conf. on the Mathematical Challenges of Big Data, incl. Inverse Problems Research and PhD positions in Bayesian Inference at University of Sussex Table of Contents: Inverse Problems Submissions for IPNet Digest: Mail to ipnet-digest@math.msu.edu Information about IPNet: http://ipnet.math.msu.edu From: Chemnitz Symposium on Inverse Problems 2018 <csip2018@tu-chemnitz.de> Subject: Registration open for Chemnitz Sympisum on Inverse Problems Date: April 23, 2018 Dear Colleagues, we would like to announce that the online registration for Chemnitz Symposium on Inverse Problems, September 27 and 28, 2018 is now open: https://www.chemnitz-am.de/ipsym2018/registration.php The symposium will be one of three events of the Chemnitz September of Applied Mathematics. You are cordially invited to participate at the symposium. If there are questions, please do not hesitate to contact us. It would be fine if you could give this information to your collaborators and coauthors. Welcome to Chemnitz! Yours sincerely, Jens Flemming on behalf of the organizing committee TU Chemnitz Faculty of Mathematics D-09107 Chemnitz, Germany

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

2018, 11th to 13th September 2018 OIPE 2018 - 15th International Workshop on Optimization and Inverse Problems in Electromagnetism http://www.oipe2018.at

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

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

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

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

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

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

Please find enclosed the Call for Papers. Further information about the workshop and the preceding doctoral course can be found on the website www.oipe2018.at

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

Prof. Dr. Daniel Baumgarten Chairman OIPE 2018

Download the Oipe2018 3rd call for papers final.pdf at https://oipe2018.exordo.com/files/messages/77/OIPE2018_3rd_Call_for_Papers_FINAL.pdf

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

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

CALL FOR ABSTRACTS

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

Invited Speakers To be confirmed

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

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

Homomorphic encryption Data integrity & provenance methods Visualization methods Mathematics underpinning large-scale use cases

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

Programme Committee Paulo Lisboa, Liverpool John Moores University (Chair) Patrick Rubin-Delanchy and Dan Lawson, University of Bristol (Co-Chairs) Ben Dias, Royal Mail Iain Duff, STFC, Rutherford Peter Grindrod, University of Oxford Richard Pinch, Cheltenham Jennifer Scott, Science & Technology Facilities Council Jared Tanner, University of Oxford

Further information For further information on this conference, please visit the conference webpage: https://ima.org.uk/9104/3rd-ima-conference-on-the-mathematical-challenges-of-big-data/

For general conference queries please contact Lizzi Lake, Conference Officer Email: conferences@ima.org.uk Tel: +44 (0) 1702 354 020 Institute of Mathematics and its Applications, Catherine Richards House, 16 Nelson Street, Southend-on-Sea, Essex, SS1 1EF, UK.

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

From: Masoumeh Dashti <M.Dashti@sussex.ac.uk> Subject: New research and PhD positions in Bayesian Inference at University of Sussex Date: April 11, 2018

One Research Fellow and one funded PhD position in ``Bayesian Inference and Approximations of High-Dimensional Network Models" is available at the University of Sussex, Mathematics Department:

http://www.sussex.ac.uk/about/jobs/research-fellow-in-mathematics-3077

http://www.sussex.ac.uk/study/fees-funding/phd-funding/view/911-Bayesian-Inference-and
-Approximations-of-High-Dimensional-Network-Models

Thank you very much.

Best wishes, -Masoumeh Dashti

From: <noreply@iopscience.org> Subject: Inverse Problems, Volume 34, Number 5, May 2018 Date: April 25, 2018

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Special Issue Paper

An example of non-uniqueness for the weighted Radon transforms along hyperplanes in multidimensions F O Goncharov, and R G Novikov

Compton camera imaging and the cone transform: a brief overview Fatma Terzioglu, Peter Kuchment, and Leonid Kunyansky

Quantitative photoacoustic imaging in the acoustic regime using SPIM Alexander Beigl, Peter Elbau, Kamran Sadiq, and Otmar Scherzer

Papers

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

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

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

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

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

Comparison of the genetic algorithm and incremental optimisation routines for a

Bayesian inverse modelling based network design A Nickless, P J Rayner, B Erni, and R J Scholes

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

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

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

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

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

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

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

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