IPNet Digest Volume 25, Number 01 January 30, 2018

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

From: OIPE 2018 <notifications@exordo.com>
Subject: OIPE 2018 - Call for Papers
Date: December 6, 2017

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

Dear colleagues,

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

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

Please find the Call for Papers:
https://oipe2018.exordo.com/files/messages/23/OIPE2018_Call_of_Papers.pdf
More 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

From: "Dolan, Kirk" <dolank@anr.msu.edu>
Subject: 2018 IPS June 3-5, MSU
Date: December 31, 2017

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

https://inverseproblems2018.org/

Abstract Submission is open!

We also welcome session organizers.

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

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

Contact Information:
Honorary Chairman: Dr. James V. Beck, Professor Emeritus, Michigan State University, beck@msu.edu.
Conference Chairman: Kirk Dolan, Professor
Department of Food Science & Human Nutrition
Department of Biosystems & Agricultural Engineering
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From: igwmc <igwmc@mines.edu>

Subject: iEMSs 2018 - Modelling and Decision Making Under Uncertainty
Date: January 30, 2018

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

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

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

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

Best regards,

Mary Hill , Holger Maier, Saman Razavi and Jiri Nossent

Session description:

Uncertainty is an intrinsic part of environmental modelling and the legitimacy and utility of modelling for decision making is influenced by how different sources of uncertainty are addressed and propagated through the model. Therefore, this session aims to share information on advances in uncertainty and sensitivity analysis methods, approaches and case studies to promote explicit and reasoned consideration of uncertainty. We welcome both quantitative and qualitative contributions, in both management and research settings. Examples of quantitative techniques include (but are not limited to) those associated with:

- deep uncertainty
- scenario analysis
- multi-criteria analysis
- exploratory modelling
- expert elicitation
- use of multiple working hypotheses
- multi-model ensembles
- sensitivity analysis

Examples of qualitative techniques include (but are not limited to):

- discussion and communication of limitations
- assessment of model pedigree
- assessment and quantification of information requirements
- identification of future research needs

From: <noreply@iopscience.org>
Subject: Inverse Problems Tables of Contents
Date: December 1, 2017

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Modified transmission eigenvalues in inverse scattering theory
S Cogar, D Colton, S Meng, and P Monk

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

Boundary determination of the Lamé moduli for the isotropic elasticity system
Yi-Hsuan Lin, and Gen Nakamura

Fast myopic 2D-SIM super resolution microscopy with joint modulation pattern estimation
François Orieux, Vincent Loriette, Jean-Christophe Olivo-Marin, Eduardo Sepulveda, and Alexandra Fragola

Determining anisotropic conductivity using diffusion tensor imaging data in magneto-acoustic tomography with magnetic induction
Habib Ammari, Lingyun Qiu, Fadil Santosa, and Wenlong Zhang

Monotonicity based imaging method for time-domain eddy current problems
Z Su, S Ventre, L Udpa, and A Tamburrino

A TVSCAD approach for image deblurring with impulsive noise
Guoyong Gu, Suhong Jiang, and Junfeng Yang

Inversion of geophysical potential field data using the finite element method
Bishnu P Lamichhane, and Lutz Gross

A physiology-based parametric imaging method for FDG–PET data
Mara Scussolini, Sara Garbarino, Gianmario Sambuceti, Giacomo Caviglia, and Michele Piana

New sets of eigenvalues in inverse scattering for inhomogeneous media and their determination from scattering data
Lorenzo Audibert, Fioralba Cakoni, and Houssem Haddar

Preasymptotic convergence of randomized Kaczmarz method
Yuling Jiao, Bangti Jin, and Xiliang Lu

Uniqueness for the electrostatic inverse boundary value problem with piecewise constant anisotropic conductivities
Giovanni Alessandrini, Maarten V de Hoop, and Romina Gaburro

Carleman estimate and application to an inverse source problem for a viscoelasticity model in anisotropic case
Paola Loreti, Daniela Sforza, and Masahiro Yamamoto

Size estimates for the inverse boundary value problems of isotropic elasticity and complex conductivity in 3D
Cătălin Ion Cârstea, and Jenn-Nan Wang

A general approach to regularizing inverse problems with regional data using Slepian wavelets
Volker Michel, and Frederik J Simons

Approximation of full-boundary data from partial-boundary electrode measurements
Andreas Hauptmann

http://iopscience.iop.org/issue/0266-5611/33/12

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Special Issue Papers

Joint reconstruction via coupled Bregman iterations with applications to PET-MR imaging
Julian Rasch, Eva-Maria Brinkmann, and Martin Burger

Approximate inverse for the common offset acquisition geometry in 2D seismic imaging
Christine Grathwohl, Peer Kunstmann, Eric Todd Quinto, and Andreas Rieder

Local recovery of the compressional and shear speeds from the hyperbolic DN map
Plamen Stefanov, Gunther Uhlmann, and Andras Vasy

Stable architectures for deep neural networks
Eldad Haber, and Lars Ruthotto

Dynamic SPECT reconstruction with temporal edge correlation
Qiaoqiao Ding, Martin Burger, and Xiaoqun Zhang

Quantitative reconstructions in multi-modal photoacoustic and optical coherence tomography imaging
P Elbau, L Mindrinos, and O Scherzer

Curved version of Radon’s inversion formula on the plane
Simon Gindikin

Papers

Lipschitz stability for an inverse hyperbolic problem of determining two coefficients by a finite number of observations
L Beilina, M Cristofol, S Li, and M Yamamoto

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

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

Papers

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

A direct method for nonlinear ill-posed problems
A Lakhal

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

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

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

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

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

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

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

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

Nonlinear Analysis: Modelling and Control 2018 Volume 23, Number 1
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Controllability of nonlinear fractional delay dynamical systems with prescribed controls
Xiao-Li Ding, Juan J. Nieto

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

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

Impulsive control of nonlinear systems with impulse time window and bounded gain error
Limin Zou, Yang Peng, Yuming Feng, Zhengwen Tu

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

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

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

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

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

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

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

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

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

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

Any admissible harmonic Ritz value set is possible for GMRES

K. Du, J. Duintjer Tebbens, and G. Meurant
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Incremental computation of block triangular matrix exponentials with application to option pricing
D. Kressner, R. Luce, and F. Statti

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

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

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

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

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

Enhanced matrix function approximation
N. Eshghi and L. Reichel

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

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