IPNet Digest Volume 29, Number 07 May 07, 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/

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:

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: 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
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Department of Mathematics
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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:

Elena Celledoni, Matthias J Ehrhardt, Christian Etmann, Brynjulf Owren, Carola-Bibiane Schönlieb and Ferdia Sherry

Oversmoothing Tikhonov regularization in Banach spaces
De-Han Chen, Bernd Hofmann and Irwin Yousept

Inversion of \alpha-sine and \alpha-cosine transforms on R
Ly Viet Hoang and Evgeny Spodarev

A statistical reconstruction model for absorption CT with source uncertainty
Katrine O Bangsgaard and Martin S Andersen

Commuting integral and differential operators and the master symmetries of the Korteweg–de Vries equation
F Alberto Grünbaum

Tangential cone condition and Lipschitz stability for the full waveform forward operator in the acoustic regime
Matthias Eller and Andreas Rieder

An inverse problem for generalized Kelvin–Voigt equation with p-Laplacian and damping term
S N Antontsev and Kh Khompysh

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

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Papers:

Robust signal recovery for \ell_{1-2} minimization via prior support information
Jing Zhang, Shuguang Zhang and Wendong Wang

Fourier reconstruction for diffraction tomography of an object rotated into arbitrary orientations
Clemens Kirisits, Michael Quellmalz, Monika Ritsch-Marte, Otmar Scherzer, Eric Setterqvist and Gabriele Steidl

Ray-based inversion accounting for scattering for biomedical ultrasound tomography
Ashkan Javaherian and Ben Cox

Spatiotemporal imaging with diffeomorphic optimal transportation
Chong Chen

A source reconstruction method in two dimensional radiative transport using boundary data measured on an arc

Hiroshi Fujiwara, Kamran Sadiq and Alexandru Tamasan

Stochastic EM methods with variance reduction for penalised PET reconstructions
Željko Kereta, Robert Twyman, Simon Arridge, Kris Thielemans and Bangti Jin

Nearly optimal number of iterations for sparse signal recovery with orthogonal multi-matching pursuit
Haifeng Li, Jinming Wen, Jun Xian and Jing Zhang

Bayesian particle filter algorithm for learning epidemic dynamics
D Calvetti, A Hoover, J Rose and E Somersalo

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

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Papers:

Optimal indirect estimation for linear inverse problems with discretely sampled functional data
Mihaela Pricop-Jeckstadt

Inverse problem of reconstruction of degenerate diffusion coefficient in a parabolic equation
Piermarco Cannarsa, Anna Doubova and Masahiro Yamamoto

Analysis of a generalized regularized Gauss–Newton method under heuristic rule in Banach spaces
Zhenwu Fu, Yong Chen, Li Li and Bo Han

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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