IPNet Digest Volume 25, Number 10 December 29, 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: Denis Maillet <Denis.Maillet@univ-lorraine.fr>
Subject: Advanced school: Thermal Measurements and Inverse Techniques
Date: Sunday, December 9, 2018

Advanced school: Thermal Measurements and Inverse Techniques
METTI 7
Sep.18-Oct.4, 2019, Porquerolles island, France

This 7th advanced METTI school http://iusti.cnrs.fr/metti7 is aimed at theoretical and practical ways of tackling several important questions that are met in inverse problems in heat transfer such as:

 -- A heat source exists at a location inaccessible to measurement: what can be learnt about it from distant measurements?
 -- Can a single experiment allows the estimation of all the parameters of a thermal model?
 -- How to design the ideal experiment to estimate the thermophysical properties of a material or of a physical system?
 -- The thermal model used in an experiment is too time and memory consuming, how can it be reduced?

All these questions are related to inversion of thermal measurements: looking either for the causes responsible for observable consequences measured by a thermal signal or for the corresponding influencing parameters. Since a direct model links causes and consequences, the complete inverse approach requires to consider the triptych Measurements / Model / Inversion with equal effort for each of its parts.

These points will be discussed in the courses and tutorials sessions in the pleasant venue of Porquerolles island, Hyeres (Var) in the south of France. Preregistration is

now open on the above website.

Denis Maillet

From: Lothar Reichel <reichel@math.kent.edu>
Subject: ETNA 25 Conference on Sardinia, Italy, May 27-29
Date: December 22, 2018

We cordially invite you to attend the conference "Recent Advances in Scientific Computation", which is planned on the occasion of the 25th anniversary of the Electronic Transactions on Numerical Analysis (ETNA). The conference will take place on May 27-29, 2019, at Santa Margherita di Pula outside Cagliari, Sardinia, Italy. A focus of the conference will be new developments in large-scale computation. Many areas will be covered, including image restoration, Krylov subspace iterative methods, preconditioning, matrix functions, the solution of partial differential equations, network analysis, and the solution of ill-posed problems. The conference also will celebrate Fiorella Sgallari's 65th birthday. Further information about the conference, including plenary speakers, special sessions, and how to register, can be found at the web site
https://urldefense.proofpoint.com/v2/url?u=http-3A__bugs.unica.it_ETNA25&d=DwIBAg&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=foHAsdOAe-SBqEh3B9jOCVTaWDxfM06KrTqRhTU_ppk&s=8FTtZFSoVcS8-UMNygQ1MsCbkM3aePdBySTnwd9T4b0&e=

On behalf of the organizing committee

Ronny Ramlau, Lothar Reichel, and Giuseppe Rodriguez

From: Haroldo <haroldo.camposvelho@inpe.br>
Subject: CCIS 2019: School of Physics - GeorgiaTech (Atlanta, USA) - New Deadlines
Date: December 18, 2018

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Conference of Computational Interdisciplinary Science (CCIS 2019)

Georgia Tech - School of Physics, March 19th - 22th, 2019
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** Important Dates **

January 15th, 2019: Deadline for abstracts submission
January 25th, 2019: Abstracts acceptance
February 05th, 2019: Deadline for full paper submission
February 15th, 2019: Paper acceptance
March 19th, 2019: End of Registration
March 19th - 22th: CCIS 2019

* Conference web-page and Conference information *

- CCIS 2019 web-page:http://www.inpe.br/ccis2019/

- Venue for CCIS 2019: School of Physics of the Georgia Institute of Technology (Atlanta, GA, USA).
- Period: 19-22/March/2019

* Overview *

The Conference of Computational Interdisciplinary Science (CCIS 2019) aims to be a meeting for researchers and students working in areas of science using scientific computing. It is an initiative of the Pan-American Association on Computational Interdisciplinary Sciences (PACIS). Although there are other forums that discuss related topics, such as Applied Mathematics, Bioinformatics, and Computational Physics, the CCIS 2019 seeks, in an innovative way, a broader dialog, which is inherently inter- and multidisciplinary, where researchers from different fields can share their experiences and find solutions to their computational problems.

The conference program consists of keynote lectures, contributed sessions and tutorials on Computational Mathematics, Computational Physics and Astronomy, Computational Chemistry, Computational Biology, and computacional issues in geosciences. Topics like computational methods applied in Space and Environmental Sciences, Technology, Innovation and Economy are also in the conference scope.

Contributions can be oriented toward applications of computational methods, algorithms, numerical simulations and high-performance computing (HPC) in Science and Technology. The official language for the conference, including presentations and submissions, is English.

CCIS 2019 will focus on the following topics:
- Hybrid computing
- GPU/GPGPU scientific computing
- Computational Grid Applications
- Cloud Computing and e-Science
- Quantum Computing
- Frontiers of Computational Physics and Fluid Dynamics
- Frontiers of Computational Chemistry & Biology
- Computational Data Analysis, Simulation and Modeling
- Validation in Astrophysics and Cosmology
- Scientific Computing in Science and Engineering
- Environmental Sciences and Geography Modeling
- Image processing
- Big Data, Data Science, and Data Mining
- Parallel Numerical Algorithms
- Libraries for Numerical Computations
- Languages, Tools and Environments for Programming Numerical Algorithms
- Applications of Numerical Algorithms in Science and Technology
- Scientific Computing in Science and Engineering
- Software Engineering for Scientific Applications
- Soft-computing for Scientific Applications
- Applications of Computer Science

- Optimization and inverse problems
- Uncertainty quantification and data assimilation

We are waiting for you in Atlanta!

Flavio Fenton (GeogiaTech) and Haroldo F. de Campos Velho (INPE)
From the CCIS-2019 Organizing Committee

From: Lothar Reichel <reichel@math.kent.edu>
Subject: Faculty Position, Applied Statistics, Kent State University
Date: December 21, 2018

Kent State University's Department of Mathematical Sciences invites applications for a full-time, tenure-track, open rank position in Applied Statistics. The appointment is to begin August 21, 2019. The salary and other conditions of employment are competitive.

Qualifications include a Ph.D. in Statistics, or a closely related degree program. Preference will be given to candidates with expertise in Applied Statistics, including Data Science, Large-Scale Data Analysis, Computational Statistics, Actuarial Science, and related areas. Candidates are expected to support the established research strengths of the department as well as to contribute to the interdisciplinary outreach of the department through active collaborations with other disciplines to develop new undergraduate and graduate programs in Statistics. Further details of the position can be found at https://urldefense.proofpoint.com/v2/url?u=http-3A__jobslist.kent.edu_cw_en-2Dus_job_496162_faculty-2Dtenure-2Dtrack9-2Dmo&d=DwIDaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=XqQpsRfISL53GKFyGk8R4Jj09SJWk9Umm4LGjRt8ifg&s=7pQx-1FvHKOOgKcay9QUUb5RV2EHkUj1jnorJWI-_pA&e=

The individual hired for this position will be expected to establish an extramurally funded research program, engage in collaborative research and direct theses and dissertations, and exhibit a commitment to excellence in undergraduate and graduate education.
funded research program. For further information about the department, please visit the web site https://urldefense.proofpoint.com/v2/url?u=http-3A__www.kent.edu_math&d=DwIDaQ&c=nE__W8dFE-shTxStwXtp0A&r=d_ce0_mh_PXvtyDkkix951B_s_t7QYc8Dtq82B52K8I&m=XqQpsRfISL53GKFyGk8R4Jj09SJWk9Umm4LGjRt8ifg&s=tyIo5pltDR9-Ub13KKZz62ZzN942ZTYNRYjK3CmyAS0&e=.

To apply for this position, fill in an application at jobs.kent.edu, and attach a cover letter, a curriculum vitae, a publication list, a research statement, and a teaching statement. In addition, please send at least three (3) letters of reference to: stat-search@math.kent.edu.

Questions regarding this position may be also be sent to stat-search@math.kent.edu. Screening of applicants will begin

immediately and will continue until the position is filled.

Kent State University is an Equal Opportunity/Affirmative Action Employer with a strong commitment to the achievement of excellence and diversity among its faculty, staff, and students.

From: CMI Admin <cmi@maths.cam.ac.uk>
Subject: CMI studentships
Date: December 17, 2018

The CMI (Cambridge Mathematics of Information), based at the Faculty of Mathematics of the University of Cambridge, invites applications to the course which includes fully funded studentships.

This cutting-edge training centre in the Mathematics of Information will produce a new generation of leaders in the theory and practice of modern data science, with an emphasis on the mathematical underpinnings of this new scientific field. The programme will continue activities of CCIMI as well as those of CCA, with significant new components.

We welcome applications from students interested in subject areas covering all aspects of the broad field of mathematics of information. Potential supervisors are listed on the website. Prospective students are encouraged to discuss areas of interest relating to the course with potential supervisors. Current projects (via CCIMI) can be viewed on the website.

PhD Studentships are fully funded to include University Composition Fees and maintenance for the duration of the course to match the UKRI (previously RCUK) minimum level, and the scheme is open to nationals from all countries.

To find out more: www.maths.cam.ac.uk/cmi or email cmi@maths.cam.ac.uk.

Submitted by: Tessa Blackman Faculty of Mathematics Graduate Office
Centre for Mathematical Sciences, University of Cambridge Tel: 01223 337921
www.maths.cam.ac.uk/cmi

From: "noreply@degruyter.com" <noreply@degruyter.com>
Subject: Contents, 'Journal of Inverse and Ill-posed Problems'
Date: Thursday, November 29, 2018

Journal of Inverse and Ill-posed Problems December 2018 Volume 26, Issue 6
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TGV-based multiplicative noise removal approach: Models and algorithms
Gao, Yiming / Yang, Xiaoping

Design criteria for geometrical calibration phantoms in fan and cone beam CT systems
Jonas, Peter

Under-relaxed quasi-Newton acceleration for an inverse fixed-point problem coming from Positron Emission Tomography
Martini dos Santos, Tiara / Reips, Louise / Martínez, José Mario

An adaptive iteration reconstruction method for limited-angle CT image reconstruction
Wang, Chengxiang / Zeng, Li / Zhang, Lingli / Guo, Yumeng / Yu, Wei

Accuracy estimates of regularization methods and conditional well-posedness of nonlinear optimization problems
Kokurin, Mikhail Y.

A non-smooth and non-convex regularization method for limited-angle CT image reconstruction
Zhang, Lingli / Zeng, Li / Wang, Chengxiang / Guo, Yumeng

Optimization analysis of the inverse coefficient problem for the nonlinear convection-diffusion-reaction equation
Brizitskii, Roman V. / Saritskaya, Zhanna Y.

A finite difference method for the very weak solution to a Cauchy problem for an elliptic equation
Hào, Dinh Nho / Thu Giang, Le Thi / Kabanikhin, Sergey / Shishlenin, Maxim

A numerical algorithm for constructing an individual mathematical model of HIV dynamics at cellular level
Banks, H. Thomas / Kabanikhin, Sergey I. / Krivorotko, Olga I. / Yermolenko, Darya V.

https://www.degruyter.com/view/j/jiip.2018.26.issue-6/issue-files/jiip.2018.26.issue-6.xml

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From: "Robinson, Justin" <Justin.Robinson@tandf.co.uk>
Subject: IPSE Volume 27, Issue 2, February 2019
Date: Thursday, December 6, 2018

Inverse Problems in Science and Engineering February 2019 Volume 27, Issue 2
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Original Articles

Stabilized backward in time explicit marching schemes in the numerical computation of ill-posed time-reversed hyperbolic/parabolic systems
Alfred S. Carasso

Damage assessment in plate-like structures using a two-stage method based on modal strain energy change and Jaya algorithm
D. Dinh-Cong, T. Vo-Duy, V. Ho-Huu & T. Nguyen-Thoi

Determination of boundary condition of a multi-crystalline silicon billet during

continuous casting
Yan Hu, Yuzhen Zhao & Hai Hao

Nonlinear Tikhonov regularization in Hilbert scales with balancing principle tuning parameter in statistical inverse problems
M. Pricop-Jeckstadt

The integrated acceleration of the Chambolle-Pock algorithm applied to constrained TV minimization in CT image reconstruction
Zhiwei Qiao, Yining Zhu, Gage Redler & Shaojie Tang

Reliability enhancement of mixed-domain seismic inversion with bounding constraints
Kun Li, Xing-Yao Yin & Zhao-Yun Zong

https://www.tandfonline.com/toc/gipe20/27/2

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