IPNet Digest Volume 21, Number 09 September 29, 2014

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://www.math.msu.edu/ipnet

From: Armin Lechleiter <lechleiter@math.uni-bremen.de>
Subject: IPNet Digest: Announcement of a workshop next spring
Date: September 18, 2014

Workshop on Inverse Problems in Wave Propagation - IWaP 2015
University of Bremen, Germany, 7.4.2015 - 10.4.2015

The workshop on Inverse Problems in Wave Propagation aims to gather researchers working in the broad field of inverse problems linked to waves, providing a place to discuss novel methods, current directions, and future trends in the field.

The workshop highlights the mathematical and numerical analysis of methods tackling inverse problems linked to time-harmonic or time-dependent wave equations. Topics include for instance parameter identification for complex systems governed by differential equations, iterative and qualitative methods in inverse scattering, integral equation methods, optimization techniques, inverse eigenvalue problems, as well as the application of inversion algorithms in scientific, engineering, or industrial problems.

More information on the workshop can be found at the web site

http://www.math.uni-bremen.de/zetem/iwap2015

We would be pleased to welcome you in April 2015 in Bremen!

Best wishes,
Armin Lechleiter

From: Otmar Scherzer <otmar.scherzer@univie.ac.at>
Subject: Nominations for the fifth Calderon prize
Date: September 12, 2014

The Inverse Problems International Association (IPIA) will award the fifth Calderon Prize to a researcher under the age of 40 who has made distinguished contributions to the field of inverse problems broadly defined.

The Calderon Prize Committee consists of Professors Gang Bao, Fioralba Cakoni, Mikko Salo, Otmar Scherzer (chair), and John Schotland. Previous winners of the award are Matti Lassas (2007), Martin Burger (2009), Guillaume Bal (2011) and Mikko Salo (2013).

IPIA will present the award at the Applied Inverse Problems Conference 2015 to be held in Helsinki, Finland, May 25-29, 2015. The award will include a certificate, a $500 prize, and an invitation to give a plenary lecture at the conference. The prize also includes reimbursement for reasonable travel expenses to Helsinki.

Besides a nomination letter please include a complete CV of the nominee and a list of publications.
Also additional supporting letters can be included. The Calderon Prize Committee can also solicit nominations. The deadline for nominations is January 31st, 2015.

Nominations should be send to Professor Otmar Scherzer, to the e-mail address <otmar.scherzer@univie.ac.at>.

From: Albert Lawrence <albert.rick.lawrence@gmail.com>
Subject: Postdoctoral Position
Date: September 2, 2014

A post-doctoral position in electron tomography is now open at the Center for Research in Biological Systems, University of California, San Diego. Topics of interest include inverse problems, compressive sensing and three dimensional reconstruction.

Applicants should have a good knowledge of image processing and a strong interest in applying this knowledge to image data obtained during the course of research in systems biology. The ability to write code in Matlab and C/C++ will be essential.

Work will be mainly conducted at The National Center for Microscopy and Imaging Research (NCMIR), a component of the Center for Research in Biological Systems. NCMIR has a long history of establishing international scientific collaborations in basic biology, biomedical research and the imaging sciences. In these endeavors the primary goal has been the development of new technologies
to advance our understanding of fundamental biological processes relating to

biomedical research and provide more effective therapeutic approaches based on these new scientific insights.

This position will particularly entail collaboration with researchers at the The National Biomedical Computational Resource (NBCR) and members of the Mathematics Department at UCSD who conduct dynamical modeling based on microscopy data obtained at NCMIR. Large scale scientific computation and parallel processing constitute a significant component of work conducted at NBCR.

The position will be funded for two years and a competitive salary is available for qualified candidates.

Interested candidates should contact Dr Albert Lawrence via email at aflawrence@ucsd.edu. Further information is available at http://ncmir.ucsd.edu/

From: "A.H. Krim" <ahk@ncsu.edu>
Subject: Post-doc-position in vision and imaging
Date: August 16, 2014

Dear colleagues,
Please consult the ad for a post-doc position in EE/applied math.

https://jobs.ncsu.edu/postings/38436

Please contact me with any question you may have.
Best regards
H. Krim

From: Petra Markert-Autsch <petra.markert-autsch@mathematik.uni-wuerzburg.de>
Subject: Open position for a Junior Professorship for Mathematical 4D Microscope Modeling,
Image Analysis and Data Processing, JMU Wuerzburg, Germany
Date: September 25, 2014

The Chair of Scientific Computing at the University of Wuerzburg, Germany would like to announce a Junior Professorship for Mathematical 4D Microscope Modeling, Image Analysis and Data Processing as from 01.04.2015

Wanted is a young scientist working in the field of applied mathematics with experience in the field of mathematical modeling, stochastic analysis, data mining, and mathematical image processing.
This personality should have an excellent profile in teaching and research with internationally visible research achievements. This professorship will contribute to the research and development of interdisciplinary research between mathematics and biology, physics, computer science, and medicine and the networking of these areas while also contributing to the scientific developments within the Chair of Scientific

Computing, Mathematik IX.

The candidate is required to have successfully completed her/his graduate studies and received an excellent doctoral degree. Post-doc experience is desired.

A detailled description can be found under the following link:
http://www.mathematik.uni-wuerzburg.de/pdf/W1JuniorMathematik_e_1409.pdf

Submitted by: Petra Markert-Autsch
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From: Denis Sidorov <contact.dns@gmail.com>
Subject: New book on Integral Dynamical Models
Date: September 2, 2014

Dear Colleagues,

Attached is the flyer of our book "Integral Dynamical Models: Singularities, Signals and Control" which is in press with World Scientific/Imperial College Press, Series on Nonlinear Sciences / Series A, Vol. 87. [See link below. -Ed.]

I hope you might find this monograph is of interest for you, your colleagues and postgrads.

Best Regards,
Denis Sidorov

http://www.worldscientific.com/worldscibooks/10.1142/9278

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From: e-Book <editorial@marketing-books07.com>
Subject: eBook on "Digital Signal Processing in Experimental Research
Volume 2: Fast Transform Methods in Digital Signal Processing"
Date: September 16, 2014

I wish to introduce my new Ebook entitled
Digital Signal Processing in Experimental Research
Volume 2: Fast Transform Methods in Digital Signal Processing.

I am confident that this Ebook will be extremely useful for researchers and working professionals in experimental sciences who deal with processing experimental data. The book synopsis and content description are given below. Please recommend this book to your colleagues, students and library. One can also purchase individual chapters of the Ebook: for more details please click here:
http://ebooks.benthamsciencepublisher.org/book/9781608052301/

Sincerely,
Leonid Yaroslavsky
Tel Aviv University
Israel

Digital Signal Processing in Experimental Research Volume 2: Fast Transform Methods in Digital Signal Processing

http://ebooks.benthamsciencepublisher.org/book/9781608052301/

This ebook covers, in a single volume, fast transform methods theory, algorithms, and applications. It is the result of lecturing by the author in a number of universities in Europe, USA and Japan and has been accumulated over the author's working lifetime of more than 40 years. This experiencehas now culminated in a comprehensive mix of theoretical development and practical uses of various transform based signal processing methods, the foundation of signal processing.

Readers will find in the book many theoretical and practical approaches not covered elsewhere.Some of the most immediate applications, such as detection and analysis of periodicities in data, signal denoising and deconvolution, signal resampling, precise differentiation and integration are covered and supported by concrete algorithms in this book. Other potential applications are supported by a tour of the theory and mathematical abstraction.

The book is addressed to a broad circle of experimentalists, researchers and students that are not regularly educated in signal processing and work in various fields ofexperimental sciences ranging from experimental physicsto metrology and to biophysics and biomedical engineering. It can also be used as a textbook in courses on digital signal processing.

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Chapter 3: Hadamard, Walsh, Wavelet and Other Transforms
Chapter 4: Energy Compaction Capability of Transforms

PART 2: APPLICATIONS AND ALGORITHMS
Chapter 5: Signal Spectral Analysis
Chapter 6: Signal Restoration by Means of Linear Filtering
Chapter 7: Numerical Differentiation and Integration
Chapter 8: Efficient Algorithms

Publication Year: 2011
eISBN: 978-1-60805-230-1

From: <noreply@iopscience.org>
Subject: Inverse Problems, Volume 30, Number 9, September 2014
Date: September 3, 2014

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Tibor Lukić, and Joviša Žunić

http://iopscience.iop.org/0266-5611/30/9/email-alert/1140512245

From: Susan Cummins <newsletter@aimsciences.org>
Subject: New IPI vol. 8, no. 3 2014 August issue is now available online
Date: September 11, 2014

Inverse Problems and Imaging (IPI) August 2014 Volume 8, Number 3
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http://aimsciences.org/journals/contentsListnew.jsp?pubID=707

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Submitted by: Susan Cummins,
Publication Editor

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