IPNet Digest Volume 22, Number 06 June 30, 2015

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://janus.math.msu.edu/ipnet/

From: Rebecca Willett <willett@discovery.wisc.edu>
Subject: SAHD 2015 at Duke University
Date: June 11, 2015

Dear Colleagues:

The Duke University Workshop on Sensing and Analysis of High-Dimensional Data (SAHD 2015) will be held on July 27-29, 2015 at the Washington Duke Inn in Durham, NC. All attendees are invited to present original research. For details, see http://sahd.pratt.duke.edu/.

Important Information:

- Early registration deadline is June 15, 2015
- The Workshop takes place July 27 - 29, 2015 at the Washington Duke Inn, next to Duke University
- One of two presentation formats may be selected during registration:

1. a traditional poster or
2. a whiteboard presentation, which is similar to a poster presentation but presenters have a blank whiteboard and markers rather than a poster.

- Discounted hotel accommodations can be reserved via http://sahd.pratt.duke.edu/venue.html.

Please share this invitation with any interested colleagues, including students and postdocs!

SAHD 2015 Organizing Committee
Galen Reeves
Robert Calderbank
Larry Carin
David Dunson
Sayan Mukherjee

Henry Pfister
Ingrid Daubechies
Miguel Rodrigues
Katherine Heller
Guillermo Sapiro
Mauro Maggioni
Rebecca Willett

Submitted by: Rebecca Willett http://willett.ece.wisc.edu/

From: "Betcke, Marta" <m.betcke@ucl.ac.uk>
Subject: 4D cone beam CT imaging of foot and ankle dynamics
Date: June 29, 2015

PhD Studentship in "4D cone beam CT imaging of foot and ankle dynamics"
at University College London (UCL)

Applications are invited for PhD studentship to work with Dr Marta Betcke (CMIC, CIP, CS), Dr Andrew Goldberg (IoO, RNOH), Prof David Hawkes (CMIC, CS, MedPhys) and Guy Long (CurveBeam Europe Ltd) on X-ray CT imaging of dynamics of weight bearing foot and ankle. The successful candidate will be a part of the UCL Centre for Medical Image Computing, the UCL Centre for Inverse Problems, and the department of Computer Science researching new instrumentation and algorithms for dynamic imaging.

The foot and ankle are complex structures comprising 28 bones and the structure reflects the complexity of activity for movement, shock absorption stability and balance. Successful diagnosis and treatment planning can be extremely difficult due to limitations posed by existing imaging modalities. Understanding the complex 3D motion of the foot and ankle joints is vital in assessing the progression of long term diseases such as arthritis and devising new treatments for both injury and disease of the ankle and foot.

A new low dose vertical axis cone beam CT scanner, pedCAT, has been developed by CurveBeam, which unique feature is the ability to provide 3D images of the weight bearing foot and ankle with the patient standing motionless in a natural standing position. The aim of the PhD project is to develop and implement imaging protocols and reconstruction algorithms for imaging of dynamic function under load with the pedCAT scanner. To this end, the candidate will mathematically formulate the associated dynamic inverse problem (DIP) and investigate under which conditions and with what additional information the DIP can be uniquely and stably solved. The candidate will devise data acquisition protocols and image reconstruction algorithms for the proposed scenarios.

Further details are available at https://www.prism.ucl.ac.uk/#!/?project=137

If you are interested in applying please contact Dr Marta Betcke m.betcke@ucl.ac.uk. First round of applications will close on 16th August 2015. The studentship is due to

start on the 28th September 2015, or as soon as possible thereafter.

Submitted by: Dr Marta M. Betcke, Lecturer in Dept. Computer Science
University College London, Gower Street, WC1E 6BT London, UK
Email: m.betcke@ucl.ac.uk Tel: +44(0)20 7679 4355

From: <noreply@degruyter.com>
Subject: TOC, 'Journal of Inverse and Ill-posed Problems'
Date: June 2, 2015

Journal of Inverse and Ill-posed Problems June 2015 Volume 23, Issue 3
Table of Contents

A nonstandard approximation of pseudoinverse and a new stopping criterion for iterative regularization
Bakushinsky, Anatoly / Smirnova, Alexandra / Liu, Hui

A fast method for L1–L2 modeling for MR image compressive sensing
Zhu, Yonggui / Liu, Xiaoman

An identification problem related to the Biot system
Priimenko, Viatcheslav I. / Vishnevskii, Mikhail P.

Deautoconvolution: A new decomposition approach versus TIGRA and local regularization
Bürger, Steven / Flemming, Jens

On a characteristic property of conditionally well-posed problems
Kokurin, Mikhail Y.

Solution to the inverse Wulff problem by means of the enhanced semidefinite relaxation method
Ševčovič, Daniel / Trnovská, Mária

Summation of smooth functions of two variables with perturbed Fourier coefficients
Solodky, Sergey G. / Sharipov, Kosnazar K.

Walter De Gruyter GmbH Genthiner Straße 13 D-10785 Berlin T +49 30 260 05-0 F +49 30 260 05-251 degruyter.com Customer Service service@degruyter.com

http://www.degruyter.com/view/j/jiip.2015.23.issue-3/issue-files/jiip.2015.23.issue-3.xml

---

From: <noreply@iopscience.org>
Subject: Inverse Problems, Volume 31, Numbers 6-7, June-July 2015
Date: June 23, 2015 at 9:28:34 PM EDT

Inverse Problems June 2015 Volume 31, Number 6
Table of Contents

****

Inverse Problems July 2015 Volume 31, Number 7
Table of Contents

recovery
Ok Kyun Lee, Hyeonbae Kang, Jong Chul Ye, and Mikyoung Lim

Precision analysis based on Cramer–Rao bound for 2D acoustics and electromagnetic inverse scattering
M L Diong, A Roueff, P Lasaygues, and A Litman

An alternating iterative minimisation algorithm for the double-regularised total least square functional
Ismael Rodrigo Bleyer, and Ronny Ramlau

Aggregation of regularized solutions from multiple observation models
Jieyang Chen, Sergiy Pereverzyev Jr, and Yuesheng Xu

Verification of a variational source condition for acoustic inverse medium scattering problems
Thorsten Hohage, and Frederic Weidling

An inverse source problem for a variable speed wave equation with discrete-in-time sources
Maarten V de Hoop, and Justin Tittelfitz

A quasi-backscattering problem for inverse acoustic scattering in the Born regime
Houssem Haddar, and Jacob D Rezac

A new reconstruction method for the inverse source problem from partial boundary measurements
Alfredo Canelas, Antoine Laurain, and Antonio A Novotny