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Today's Editor: Patricia (Patti) K. Lamm, Michigan State University

Today's Topics:
    Symposium: 28th Inverse Problems Symposium 2015
    Advanced School: Thermal Measurements and Inverse Problems 2015
    Postdoc Positions: ERC Advanced Grant A-DATADRIVE-B at KU Leuven
    New Book: Distributed Systems with Persistent Memory: Control & Moment Problems
    Table of Contents: Nonlinear Analysis: Modelling and Control

Submissions for IPNet Digest:
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    http://www.math.msu.edu/ipnet

From: "Dolan, Kirk" <dolank@msu.edu>
Subject: 28th Inverse Problems Symposium 2015
Date: November 2, 2014

You are invited to submit an abstract for the 28th Inverse Problems Symposium 2015.
 More information on abstract submission will come soon.
Website: http://www.inverseproblems2015.org/
Conference will be held May 31-June 2, 2015, Michigan State University, East Lansing, MI.
Timetable:
· Abstract submission deadline: February 1, 2015
· Registration opens: January 5, 2015
· Abstract acceptance notification: March 1, 2015
· Early registration closes: May 1, 2015
Contact:
Kirk Dolan, Conference Chair
Keith Woodbury, Conference Co-Chair
James Beck, Conference Honorary Chair

We look forward to seeing you in East Lansing.

Submitted by Kirk Dolan, IPS 2015 Chairman
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From: Denis Maillet <Denis.Maillet@univ-lorraine.fr>
Subject: Advanced School - Thermal Measurements and Inverse Problems (Metti6),

Biarritz, France, March 1-6, 2015
Date: November 2, 2014

Techniques for solving inverse problems as well as their applications may seem quite obscure for newcomers to the field. They are met in different areas in the physical sciences and particularly in heat Transfer. Experimentalists desiring to go beyond traditional data processing techniques for estimating the parameters of a model with the maximum accuracy feel often ill prepared in front of inverse techniques.

In order to avoid biases at different levels of this kind of involved task, it seems compulsory that specialists of measurement inversion techniques, modelling techniques and experimental techniques share a wide common culture and language. These exchanges are necessary to take into account the difficulties associated to all these fields. It is in this state of mind that this school is proposed.

The METTI Group (Thermal MEasurements and Inverse Techniques), which is a division of the French Heat Transfer Society (SFT), has already run or coorganized five similar schools, in the Alps (Aussois) in 1995 and 2005, in the Pyrenees (Bolquère-Odeillo) in 1999, in Rio de Janeiro (2009) and in Roscoff (2011). For this sixth edition the school is again open to participants from the European Community with the support of the Eurotherm Committee and and of CNRS.

Lectures will be given from 9:00 to 12:30 every morning from Monday to Friday and will cover the following subjects: Inverse problems, parametric estimation, nonlinear estimation, optimization, regularization, sensors, function estimation, signal processing, model reduction, etc.

Tutorials will be held between 17:00 and 20:30 from Monday to Thursday. They will include an experimental and/or a numerical part.

The detailed abstracts of the tutorials will be presented on the school website. Each participant will be asked to choose tutorials according to the schedule, with a maximum number equal to six, at least.

Pre-registration is now open at http://metti.u-bordeaux.fr
The program is given in the same website.

Final registration will be confirmed by the local organizing committee according to the CNRS regulations and the constraint of limited attendance.

Submitted by Denis Maillet
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From: Johan Suykens <Johan.Suykens@esat.kuleuven.be>
Subject: Postdoc positions ERC Advanced Grant A-DATADRIVE-B at KU Leuven
Date: November 28, 2014

The research group KU Leuven ESAT-STADIUS is currently offering 2 Postdoc positions (1-year, extendable) within the framework of the ERC Advanced Grant A-DATADRIVE-B (PI: Johan Suykens) http://www.esat.kuleuven.be/stadius/ADB on Advanced Data-Driven Black-box modelling.

The research positions relate to the following possible topics:

-1- Prior knowledge incorporation
-2- Kernels and tensors
-3- Modelling structured dynamical systems
-4- Sparsity
-5- Optimization algorithms
-6- Core models and mathematical foundations
-7- Next generation software tool

The research group ESAT-STADIUS http://www.esat.kuleuven.be/stadius at the university KU Leuven Belgium provides an excellent research environment being active in the broad area of mathematical engineering, including systems and control theory, neural networks and machine learning, nonlinear systems and complex networks, optimization, signal processing, bioinformatics and biomedicine.

The research will be conducted under the supervision of Prof. Johan Suykens. Interested candidates having a solid mathematical background and PhD degree can on-line apply at the website https://icts.kuleuven.be/apps/jobsite/vacatures/53177117?lang=en by including CV and motivation letter. For further information on these positions you may contact johan.suykens@esat.kuleuven.be.

From: Luciano Pandolfi <luciano.pandolfi@polito.it>
Subject: book: Distributed Systems with Persistent Memory: Control and Moment Problems
Date: November 20, 2014

New book:
Distributed Systems with Persistent Memory: Control and Moment Problems
SpringerBriefs in Control, Automation and Robotics

L. Pandolfi

The book presents the main ideas used up to now in the study of linear control problems for distributed systems with persistent memory. This family of systems is encountered in several applications, including thermodynamics and viscoelasticity.

- Operator methods are presented in Chapter 2;
- Moment methods are used in the study of controllability in Chapter 4;
- The observation inequality for systems with persistent memory is studied in Chapter 6.

Chapter 3 presents an account of moment theory as used in the study of exact controllability while chapter 1 is an introductory chapter, intended to familiarize the readers with the systems studied in this book. It contains also preliminaries of Functional Analysis.

Problems are provided for the material treated in every chapter.

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Submitted by: Luciano Pandolfi, Dipartimento di Scienze Matematiche
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From: Romas Baronas <romas.baronas@mif.vu.lt>
Subject: Table of Contents, Nonlinear Analysis: Modelling and Control
Date: November 24, 2014

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Symbolic computation of exact solutions for fractional differential-difference equation models
Ismail Aslan

An exhaustive search approach for chemical kinetics experimental data fitting, rate constants optimization and confidence interval estimation
Audrius Laurynėnas, Juozas Kulys

A free on-line edition is available at: http://www.mii.lt/NA/

Submitted by: Dr. Romas Baronas, Deputy-Editor-in-Chief,
Nonlinear Analysis: Modelling and Control, http://www.mii.lt/NA/
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