

BULLETIN

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Coming Events

February 19-22, 2008: International Conference on Mathematics and Continuum Mechanics

Organizers

António J. Mendes Ferreira (Univ. of Porto), Isabel Maria Narra de Figueiredo (Univ. of Coimbra) and Juha Videman (IST, Lisbon).

Aims

The event focuses on a selected range of interdisciplinary topics handled from both a mathematical and an engineering applications point of view. Despite the apparent heterogeneity of the topics, they are certain to prompt interesting dialogue among the conveners.

The target audience is, besides engineers, physicists and mathematicians, graduate and Ph.D. students interested in doing research on problems related to Mathematics, Solid and Fluid Mechanics and Geophysics.

The conference will feature six thematic mini-symposia:

Computational Methods for Advanced Composites Organizer: Pedro Camanho (FEUP, Porto) Contact Mechanics Organizer: Marius Cocou (CNRS, France)

Mathematics and the Atmospheric Sciences Organizer: João Teixeira (NATO-URC, Italy)

Modelling of Industrial Processes Organizer: Luisa Silva (ENSMP, France)

Numerical Analysis of Thin Structures Organizer: Lourenço Beirão da Veiga (U. Milano, Italy)

Ocean Dynamics Organizer: Aires dos Santos (IST, Lisbon).

Each symposium consists of one forty-five minute plenary session and two to four invited half-hour addresses. Some contributed papers will be selected for fifteen to twenty minute presentations and others to be on display in a poster session.

The event will take place at the University of Porto and the Proceedings will be published by CIM.

INVITED AND PLENARY SPEAKERS

Francisco Javier Llorca Martínez (Polytechnic Univ. of Madrid, Spain)

Moving surfaces and interfaces calculation in material forming

Silvestre Pinho (Imperial College, UK) On the prediction of failure in laminated composites

Joris Remmers (University of Delft, The Netherlands) to be announced

João Martins (IST, Lisbon) Stability of quasi-static paths of finite-dimensional systems with Coulomb friction and persistent contact

Gianpietro Del Piero (Univ. di Ferrara, Italy) Recent progresses in the modelling of material behavior

Lars-Erik Andersson (Linköping Univ., Sweden) Existence and uniqueness for quasistatic contact problems with friction

Kevin Judd (Univ. of Western Australia, Australia) Weather forecasting: It's about dynamics, it is not about statistics

Luca Bonaventura (Politecnico di Milano, Italy) Flux form, conservative semi-Lagrangian schemes

A. Pier Siebesma (Royal Netherlands Meteorological Inst., The Netherlands) *Cloud structures and organisation*

Thierry Coupez (CEMEF, École des Mines de Paris, France)

Moving surfaces and interfaces calculation in material forming

José César de Sá (FEUP, Porto) Non-local models for localization in large deformations Ramon Codina (CIMNE, Univ. of Catalunha, Spain) to be announced

Dominique Chapelle (INRIA, France) Fundamental and applicative challenges in the modelling and computations of shells

Carlo Lovadina (Univ. of Pavia, Italy) A-posteriori error estimates for the Reissner-Mindlin plate problem

Harri Hakula (Helsinki Univ. of Technology, Finland) Numerical shell eigenproblem benchmarks

Rui Ponte (Atmospheric and Environmental Research, Inc., USA)

 $Global\ ocean\ state\ estimation$

Emanuel Ferreira Coelho (Univ. of Southern Mississippi, USA)

Operational oceanography: zoom-in modelling for local applications

Paulo Chambel (Hidromod, Modelação em Engenharia) Towards an hydrodynamic and biogeochemical operational model of the Portuguese coast

Maria Valdivieso da Costa (ACTIMAR, France) Mode water variability diagnosed from an eddypermitting reanalysis of the North Atlantic

Henrique Coelho (Hidromod, Modelação em Engenharia)

Processes over submarine canyons

For more information about this event, see

paginas.fe.up.pt/~cim2008

June 12-14, 2008: CIM/CRM Workshop on Financial Time Series

Organizers

Paulo Teles (Porto School of Economics) and Pilar Muñoz (Technical University of Catalonia, Barcelona, Spain).

Aims

This workshop brings together leading experts and several other researchers on financial time series, enabling them to present and discuss the latest research and case studies on this important issue and consequently providing knowledge exchange.

Financial time series is an increasingly important topic nowadays. In fact, modelling financial data recorded over time has achieved such high standards that it is now possible to deal with most data encountered in practice. Nevertheless, several important issues remain to be improved requiring new research and different approaches. Presenting and discussing them is extremely important and useful. To this purpose, some of the best researchers will present their latest developments and will be open for discussion with other participants. Exchanging own experiences, problems, views and approaches will undoubtedly bring an important contribution and will stimulate new research in the field.

This Workshop takes place at the premises of CIM - Centro Internacional de Matemática.

INVITED SPEAKERS

Daniel Peña (Univ. Carlos III de Madrid, Spain)

Esther Ruiz (Univ. Carlos III de Madrid, Spain)

Feridun Turkman (Lisbon Univ.)

Frank Diebold (Univ. of Pennsylvania, USA)

João Nicolau (ISEG, Lisbon Technical Univ.)

Nuno Crato (ISEG, Lisbon Technical Univ.)

Philip Hans Franses (Erasmus Univ. Rotterdam, The Netherlands)

For more information about the event, see

www.cim.pt/wfts2008

June 16-21, 2008: GAP VI - Workshop on Geometry and Physics

Organizers

Carlos Currás-Bosch (Univ. de Barcelona, Spain)

Rui Loja Fernandes (IST, Lisbon)

David Iglesias (CSIC, Madrid, Spain)

Eva Miranda (Univ. Autònoma de Barcelona, Spain)

San Vu Ngoc (Univ. de Rennes, France)

Ping Xu (Penn State Univ., USA)

Aims

GAP VI is the sixth edition of a series of "Séminaires Itinerants" that have taken place in different locations. This year the topic is Integrable Systems. There will be four mini-courses and several talks by participants.

The aim is to bring together young researchers from the two areas of Geometry and Physics and to fill in the GAP dividing this two deeply interconnected research fields.

The event is a joint CRM-CIM Workshop and will take place at CRM - Centre de Recerca Matemàtica, Barcelona (Bellaterra), Spain.

MINI-COURSES

Yves Colin de Verdière (Inst. Fourier, France) Semi-classical Analysis of Integrable systems

Johannes Duistermaat (Univ. Utrecht, The Netherlands) to be announced

Hakan Eliasson (Inst. Math. de Jussieu, France) KAM for the non-linear Schrödinger equation

Rahul Pandharipande (Princeton Univ., USA) Integrable systems and algebraic curves

For more information about the event, see

www.crm.cat/GAPVI

June 26-28, 2008: Workshop on Nonparametric Inference - WNI2008

Organizers

Carla Henriques (CMUC & Escola Superior de Tecnologia de Viseu)

Carlos Tenreiro (CMUC & Univ. of Coimbra)

Paulo Eduardo Oliveira (CMUC & Univ. of Coimbra)

Scientific committee

Antonio Cuevas (Univ. Autónoma de Madrid, Spain)

Emmanuel Candès (California Inst. of Techn., USA)

Enno Mammen (Univ. of Mannheim, Germany)

Irène Gijbels (Katholieke Univ. Leuven, Belgium)

Lászlo Györfi (Budapest Univ. of Technology and Economics, Hungary)

Paulo Eduardo Oliveira (CMUC & Univ. of Coimbra)

Phillippe Vieu (Univ. Paul Sabatier, Toulouse, France)

Aims

The goals of this workshop are:

- to illustrate active trends in a number of subjects in nonparametric statistics, including curve estimation, model checking, functional data, survival analysis, adaptive bandwidth choice and bootstrap;
- to give an opportunity for research students to develop their competence in nonparametric methods;
- to provide a meeting point for researchers in nonparametric inference, intending to contribute for the establishment of new links;
- additionally, it also hopes to contribute to incentive national research in non-parametric statistical topics.

The event will take place at the Department of Mathematics of the University of Coimbra.

INVITED SPEAKERS

Antonio Cuevas (Univ. Autónoma de Madrid, Spain) On nonparametric estimation of boundary measures

Emmanuel Candès (California Inst. of Techn., USA) to be announced

Enno Mammen (Univ. of Mannheim, Germany) to be announced

Lászlo Györfi (Budapest Univ. of Technology and Economics, Hungary)

Nonparametric prediction of time series

Phillippe Vieu (Univ. de Paul Sabatier, Toulouse, France)

On Nonparametric functional data analysis

For more information about the event, see

www.mat.uc.pt/~wni2008

July 7-9, 2008: WEAA - Workshop on Estimating Animal Abundance

Organizers

Russell Alpizar-Jara (Dep. of Mathematics and CIMA, Univ. of Évora)

Anabela Afonso (Dep. of Mathematics and CIMA, Univ. of Évora)

João Filipe Monteiro (Dep. of Mathematics and CIMA, Univ. of Évora)

Aims

This is an interdisciplinary workshop that intends to narrow the gap between statistical estimation theory for animal populations, and wildlife and fisheries applications of this methodology. The workshop will be an introductory overview of capture-recapture and distance sampling models and will include estimation of population size, survival rates and birth numbers. An emphasis will be placed on real examples and the importance of validation of model assumptions. Recent developments of capture-recapture applications to Epidemiological estimation problems could also be addressed.

Three days in a computer lab so participants will try out the programs: MARK, M-SURGE and U-CARE, and DISTANCE. Participants are encouraged to bring their own laptop and data sets for analyses. Additional selected data sets from fieldwork will also be available.

Topics will include:

- Closed and open capture-recapture models,
- The robust design,
- Designing capture-recapture studies,
- Multi-state capture-recapture models,
- Distance sampling methods.

The workshop will be held at the University of Évora.

INSTRUCTORS

Kenneth Pollock (North Carolina State Univ., USA)

Jean-Dominique Lebreton (CNRS, CEFE, France)

Theodore R. Simons (Cooperative Fish and Wildlife Research Unit, North Carolina State Univ., USA)

For more information about the event, see

www.eventos.uevora.pt/~weaa

July 21-26, 2008: CIM/UC Summer School on Dynamical Systems

This event will be held at the University of Coimbra.

September, 2008: International Meeting on Calculus of Variations and Applications

This event will be held at the New University of Lisbon.

WORKING AFTERNOONS SPM/CIM

Hotel Quinta das Lágrimas, Coimbra

A joint initiative of the Portuguese Mathematical Society and CIM.

January 12, 2008 - Lie Algebras and Applications

Organizer: Helena Albuquerque (Univ. of Coimbra) For more information, see

www.cim.pt/?q=spm_cim_lie_algebras_2008

March 1, 2008 - Graph Theory and Combinatorics

Organizer: Jorge Orestes Cerdeira (Instituto Superior de Agronomia, UTL)

For more information, see

www.cim.pt/?q=spm_cim_graphs_combin_2008

CIM SHORT COURSES

Hotel Quinta das Lágrimas, Coimbra

February 8, 2008: Numerical Optimization: Theory and Practice

Lecturer: José Mario Martinez (Univ. Campinas, Brazil)

Schedule:

- 9:30 11:00 : Session 1
- 11:00 11:30 : Coffee-Break
- 11:30 13:00 : Session 2
- 13:00 15:00 : Lunch
- 15:00 17:00 : Session 3

For the abstract (in Portuguese) and registration, see www.cim.pt/?q=numericaloptimization2008

For updated information on these events, see

www.cim.pt/?q=events