



BULLETIN

INTERNATIONAL CENTER FOR MATHEMATICS

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COMING EVENTS

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 pro-

viding 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)
Independent Component Analysis for Financial Time Series

Esther Ruiz (Univ. Carlos III de Madrid, Spain)
Bootstrap forecast in state space models

Feridun Turkman (Univ. Lisbon)
Extremes of Continuous-discrete Time Series

Frank Diebold (Univ. of Pennsylvania, USA)
Yield Curve Modelling and Forecasting

João Nicolau (ISEG, Lisbon Technical Univ.)
Modelling Financial Time Series through Second Order Stochastic Differential Equations

Nuno Crato (ISEG, Lisbon Technical Univ.)
Parametric and Nonparametric Methods for Comparing Financial Time Series

Philip Hans Franses (Erasmus Univ. Rotterdam, The Netherlands)
A simple test for GARCH against a Stochastic Volatility Model

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)
QRT and elliptic surfaces

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

San Vu Ngoc (Univ. de Rennes, France)
Symplectic invariants of integrable Hamiltonian systems

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 non-parametric 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)
Computationally tractable statistical estimation when there are more variables than observations

Irène Gijbels (Katholieke Univ. Leuven, Belgium)
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, CEFÉ, 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 21-25, 2008: CIM/UC Summer School in Dynamical Systems

SCIENTIFIC COORDINATOR

José Ferreira Alves (Univ. Porto)

AIMS

This Summer School is a joint venture of Centro Internacional de Matemática (CIM) and the University of Coimbra (UC), and is sponsored by the Gulbenkian Foundation and the Foundation for Science and Technology (FCT). It will gather a group of specialists working on Dynamical Systems and Ergodic Theory, and will highlight emerging trends and issues of main research topics.

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

CONFERENCE PROGRAM

Lorenzo J. Díaz (PUC-Rio, Brazil)

Partially hyperbolic dynamics

Carlangelo Liverani (Univ. Roma Tor Vergata, Italy)

Probability and uniformly hyperbolic systems

Nuno Luzia (New Univ. Lisbon)

Fractional dimensions

Marcelo Viana (IMPA, Brazil)

Geodesic flows on flat surfaces

For more information about the event, see

www.cim.pt/sds08

September 8-10, 2008: Calculus of Variations and its Applications: from Engineering to Economy

LOCAL ORGANIZERS

Ana Luísa Custódio, Marta Faias, Luísa Mascarenhas, Ana Margarida Ribeiro, Luís Trabucho (all New Univ. Lisbon)

SCIENTIFIC COMMITTEE

Luísa Mascarenhas (New Univ. Lisbon)

Luís Trabucho (New Univ. Lisbon)

Luís Nunes Vicente (Univ. Coimbra)

AIMS

The aim of this event is to promote the scientific exchange of ideas and methods in such a broad and useful area as the Calculus of Variations. With the goal of applications to different areas such as Mathematics, Mechanics, Engineering, Economy, Finances, Chemistry, Biology, just to name a few, models and methods have been developed, with apparent different languages but that are susceptible of an unified analytical and numerical treatment.

Taking into account the most recent developments in this area of Mathematics, we wish to address problems

associated with Partial Differential Equations, Optimal Control, Finite or Infinite Dimension Optimization, Shape Optimization in Structural Engineering, together with the associated computational aspects.

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

MAIN LECTURERS

Guy Bouchitte (Univ. Toulon et du Var, France)

to be announced

Giuseppe Buttazzo (Univ. of Pisa, Italy)

Optimal Dirichlet regions for some elliptic problems

Bernard Dacorogna (École Polyt. Fédérale Lausanne, Switzerland)

On the pullback equation

Irene Fonseca (Carnegie Mellon Univ., Pittsburgh, USA)

Variational methods in materials and imaging

Joaquim J. Júdice (Univ. of Coimbra)

to be announced

Boris Mordukhovich (Wayne State Univ., USA)

Variational problems for evolution and control systems

Mário Páscoa (New Univ. of Lisbon)

to be announced

INVITED SPEAKERS

Paula Amaral (New Univ. Lisbon), Nadir Arada (New Univ. Lisbon), Margarida Baía (Tech. Univ. Lisbon), Cristian Barbarosie (Univ. Lisbon), Ana Cristina Barroso (Univ. Lisbon), Fabio Chalub (New Univ. Lisbon), Fernanda Cipriano (Univ. Lisbon), João Correia da Silva (Univ. Porto), Isabel Narra Figueiredo (Univ. Coimbra), Raquel Gaspar (Tech. Univ. Lisbon), Diogo Gomes (Tech. Univ. Lisbon), Maria do Rosário Grossinho (Tech. Univ. Lisbon), João Pedro Nunes (ISCTE), António Ornelas (Univ. Évora), Helder Rodrigues (Tech. Univ. Lisbon), Delfim Torres (Univ. Aveiro)

For more information about the event, see

ferrari.dmat.fct.unl.pt/cva2008

For updated information on these events, see

www.cim.pt/?q=events
