Coming Events

4th Porto Meeting on Mathematics for Industry

Porto, Portugal
June 07-09, 2012
[http://cmup.fc.up.pt/cmup/mathindustry/2012/]

The purpose of this meeting is to focus the attention on the many and varied opportunities to promote applications of mathematics to industrial problems. Its major objectives are:

- Development and encouragement of industrial and academic collaboration, facilitating contacts between academic, industrial, business and finance users of mathematics.
- Through "bridging the industrial/academic barrier" these meetings will provide opportunities to present successful collaborations and to elaborate elements such as technology transfer, differing vocabularies and goals, nurturing of contacts and resolution of issues.
- To attract undergraduate students to distinctive and relevant formation profiles, motivate them during their study, and advance their personal training in Mathematics and its Applications to Industry, Finance, etc.

The meeting will be focused on short courses, of three one-hour lectures each, given by invited distinguished researchers, which are supplemented by contributed short talks by other participants and posters of case studies.

The meeting will be followed by the 86th European Study Group with Industry 2012 that will take place in ISEP—School of Engineering, Polytechnic of Porto, Portugal, between the 7th and the 12th of May 2012.

86th European Study Group with Industry 2012

ISEP—School of Engineering, Polytechnic of Porto, Portugal
May, 7-13, 2012

The purpose of these meetings is to strengthen the links between Mathematics and Industry by using Mathematics to tackle industrial problems, which are proposed by industrial partners. This meeting is part of the series of European Study Groups and will count with the participation of several European experts with a large experience in this type of events.

More information on Portuguese Study Groups is available at http://www.ciul.ul.pt/~freitas/esgip.html, while general information on study groups and related aspects is available at the International Study Groups website:

http://www.maths-in-industry.org,

the Smith Institute:

http://www.smithinst.ac.uk,

and the European Consortium for Mathematics in Industry:

http://www.ecmi-indmath.org/info/events.php.

Summer School on Algebraic and Enumerative Combinatorics,

Centro de Estudos Camilianos—S. Miguel de Seide
July 2-13, 2012

The Summer School on Algebraic and Enumerative Combinatorics will be held in July, 2-13, 2012, at the *Centro de estudos Camilianos*, in a building of Álvaro Siza, the 1992 Laureate of the *Pritzker Architecture Prize*. The *Centro de estudos Camilianos* is in S. Miguel de Seide, near to Guimarães, Portugal, where the participants are expected to be lodged. The school will focus on four courses, given by Francesco Brenti, Christian Krattenthaler, Marc Noy and Vic Reiner. The topics to be addressed by the speakers are, respectively, Combinatorics of Coxeter Groups, Map Enumeration, Asymptotic Enumeration of Topological Graphs and Reflection Group counting and q-counting, and the courses are mainly directed to graduate and post-graduate students, as well as researchers. There will also be time for some contributed short talks by participants.

More information available at:
http://www2.fc.up.pt/pessoas/agoliv/SC/default.htm

Summer School "Dynamic Models in Life Sciences"

The Summer School "Dynamic Models in Life Sciences" was coorganized by the Centro Internacional de Matemática (http://www.cim.pt), the European Society for Mathematical and Theoretical Biology (http://www.esmtb.org) and the European Mathematical Society (http://www.euro-math-soc.eu/) with financial support from the Fundação para a Ciência e a Tecnologia (http://www.fct.pt) and Centro de Matemática e Aplicações (Universidade Nova de Lisboa), Centro de Matemática e Aplicações Fundamentais (Universidade de Lisboa) and Centro de Investigação em Matemática e Aplicações (Universidade de Évora).

These summer schools are organized every year in a different European country. This was the first time Portugal hosted the event.

During one week in the warm weather of Evora in Summer (24th to 30th July 2011), 6 speakers presented the state-of-the art in their respective fields to more than 40 participants coming from 13 different countries. Participants mostly consisted of PhD students and post-docs in Mathematics, Biology and Physics. An important point was the Portuguese presence in the event, larger than expected.

Apart from the mini-courses (listed below), there was a poster session, where students could present their work and receive feedback from leading specialists in the field.

One afternoon was reserved to a visit to the Ducal Palace in Vila Viçosa followed by a traditional Alentejano dinner with local music.

Mini-courses: Dynamical models of Cancer (David Dingli, Mayo Clinic, USA); Adaptive dynamics and the evolution of pathogens (Eva Kisdi, University of Helsinki, Finland); Modelling Meso-evolution: adaptive dynamics and beyond (Hans Metz, Leiden University, The Netherlands); Stochastic and Deterministic Processes in Spatial Population Dynamics (Sergei Petrovskii, University of Leicester, UK); Mathematical Models in Hemodynamics. (Adelia Sequeira, Universidade Técnica de Lisboa, Portugal); Ecology and Eco-epidemiology. (Ezio Venturino, Universitá di Torino, Italy).

Organizers: Fernando Carapau (Évora), Fabio Chalub (Lisbon), Francisco Santos (Lisbon), Nico Stollenwerk (Lisbon).

An Interview

with Carla Gomes

by **JoãoGama** [Fac. de Economia da Univ. do Porto]
and **Márcia Oliveira** [LIAAD-INESC TEC, and FEP, Univ. do Porto]

Carla Gomes is a professor of computer science at Cornell University, with joint appointments in the computer science, information science, and Dyson School of applied economics and management departments. Her research has covered several themes in artificial intelligence and computer science, from the integration of constraint reasoning, operations research, and machine learning techniques for solving large-scale constraint reasoning and optimization problems, to the use of randomization techniques to improve the performance of exact search methods, algorithm portfolios, multi-agent systems, and game play.

Recently, Gomes has become immersed in the establishment of computational sustainability, a new interdisciplinary field that aims to develop computational methods to help balance environmental, economic, and societal needs to support a sustainable future. Gomes has started a number of research projects in biodiversity conservation, poverty mapping, the design of "smart" controls for electric cars, and pattern identification for material discovery (e.g., for fuel cell technology). Gomes obtained a PhD in computer science in the area of artificial intelligence and operations research from the University of Edinburgh. She also holds an MSc in applied mathematics from the Technical University of Lisbon. Gomes is the lead principal investigator on an award from the National Science Foundation's Expeditions in Computing program, the director of the newly established Institute for Computational Sustainability at Cornell, and a fellow of the Association for the Advancement of Artificial Intelligence. Gomes is currently a Fellow at the Radcliffe Advanced Study Institute at Harvard University.

Carla Gomes was an invited speaker at the 10th Intelligent Data Analysis Symposium, held in Porto from 29 to 31 October. The opportunity of having Carla Gomes in Porto motivated the present interview.