

COMING EVENTS

THEMATIC TERM ON SEMIGROUPS, ALGORITHMS, AUTOMATA AND LANGUAGES

ORGANIZERS

Gracinda M. S. Gomes (University of Lisbon, Portugal), Jean-Eric Pin (University of Paris VII, France) and Pedro V. Silva (University of Porto, Portugal).

DATE: May - July, 2001.

The Term is designed to make Coimbra the gathering point of researchers in the subjects of semigroup theory and automata theory during the months of May, June and July 2001. Besides providing a basepoint for the development of joint research projects, the Term includes multiple activities such as specialized schools and workshops on relevant specific subjects. Postgraduate students will be particularly welcome.

Each school consists of several 5 hour courses held by prominent researchers. The workshops include 50 minute invited lectures and a limited number of 20 minute talks on the specific topics of the workshop, proposed by the participants. Anyone wishing to present such a communication is invited to submit a 1 to 2 page long abstract before February 28 to the e-mail address term2001@cii.fc.ul.pt.

The programme of events is the following:

2-11 May: School on Algorithmic Aspects of the Theory of Semigroups and its Applications

INVITED LECTURERS: J. Almeida (Porto), C. Choffrut (Paris VII), J. Fountain (York), S. Margolis (Bar-Ilan), L. Ribes (Carleton), M. Sapir (Vanderbilt), M. Volkov (Ekaterinburg), T. Wilke (Kiel).

4-8 June: School on Automata and Languages

INVITED LECTURERS: M. Branco (Lisbon), V. Bruyère (Mons), O. Carton (Marne-la-Vallée), A. Restivo (Palermo).

11-13 June: Workshop on Model Theory, Profinite Topology and Semigroups

INVITED LECTURERS: J. Almeida (Porto), T. Coulbois (Paris VII), H. Straubing (Boston College), P. Trotter (Tasmania), P. Weil (Bordeaux).

2-6 July: School on Semigroups and Applications

INVITED LECTURERS: K. Auinger (Vienna), M. Lawson (Bangor), W. D. Munn (Glasgow), A. Pereira do Lago (São Paulo).

9-11 July: Workshop on Presentations and Geometry

INVITED LECTURERS: R. Gilman (Stevens Inst. of Tech.), D. McAlister (DeKalb), J. Meakin (Lincoln), S. Pride (Glasgow), N. Ruskuc (St. Andrews), B. Steinberg (Porto).

The venue for all events is the Observatório da Universidade de Coimbra, in the peaceful setting of Mount Santa Clara.

REGISTRATION FEES

MAY SCHOOL

Before February 28: Euro 100

After February 28: Euro 120

JUNE EVENTS

Before February 28: Euro 100

After February 28: Euro 120

JULY EVENTS

Before February 28: Euro 100

After February 28: Euro 120

FULL TERM

Before February 28: Euro 200

After February 28: Euro 240

In return for their fees, the participants are entitled to receive school/workshop documentation and to participate freely in the social activities, including the corresponding Term dinners, to be held on May 10, June 12 and July 10.

Accompanying persons wishing to join the social programme will pay 75% of the normal fee. Early payments can be made by international cheque addressed to “Centro Internacional de Matemática” (CIM). The cheques should be sent to:

Patrícia Paraíba,
C.A.U.L., Av. Prof. Gama Pinto 2,
1649-003 Lisboa, Portugal.

Detailed information on accommodation and travel arrangements will be supplied in the second announcement, to be issued soon.

A limited number of scholarships will provide funding for those participants in need of financial support, particu-

larly postgraduate students. Anyone wishing to apply for support is invited to do so before December 31, mentioning the amount of funding required and justifying such a request.

In order to receive further information on the Thematic Term, the potential participant should fill out the attached preregistration form and return it by e-mail to the address term2001@cii.fc.ul.pt. The information contained in the form will be assumed to be provisional.

For more information on these events and registration forms, please visit the site

<http://alf1.cii.fc.ul.pt/term2001/>

The Thematic Term has the support of Fundação Calouste Gulbenkian, Fundação para a Ciência e Tecnologia, Centro de Matemática da Universidade do Porto and Centro de Álgebra da Universidade de Lisboa.

SUMMER SCHOOL

ANALYTICAL AND NUMERICAL METHODS IN NON-NEWTONIAN FLUID MECHANICS

ORGANIZERS

Estelita Vaz (University of Minho, Portugal), J. Maia (University of Minho, Portugal) and K. Walters (University of Wales Aberystwyth, United Kingdom).

DATE: 25-29 June, 2001.

AIMS

Despite its relevance to a wide number of industries, Rheology and Non-Newtonian Fluid Mechanics are subjects that are often viewed as being of prohibitive complexity to newcomers to the field and have often not been used to the fullest possible extent. The aim of the School is, therefore, to interest young researchers into the field by helping to bridge the gap between the available theoretical tools and existing problems of a mathematical nature in industry and academia.

The School will be held in the Guimarães Campus of the University of Minho, Portugal.

LECTURERS

K. Walters, University of Wales

A. R. Davies, University of Wales

M. H. Wagner, Technical University of Berlin

G. Marrucci, University of Naples

R. Keunings, Catholic University of Louvain

F. P. T. Baaijens, University of Eindhoven

REGISTRATION AND FEE

Registration can be performed by e-mail, fax or letter directly to the School Secretariat at:

Summer School Secretariat

Ms. Elisabete Santos

School of Sciences, University of Minho

4800-058 Guimarães, Portugal

Phone: 351 253 510 159

Fax: 351 253 510 153

e-mail: s.school@ecum.uminho.pt

The registration letter must specify the participants' name, institution, address, telephone, fax and e-mail.

The following School Fees will apply:

Before March 31, 2001: 350 Euro.

After March 31, 2001: 450 Euro.

The fee includes attendance at the lectures, the support materials (programme, book, etc.), five lunches (monday to friday), a visit to the Port Wine cellars and admission to the school dinner. The fee can be paid either by cheque payable to Summer School 2001 or by bank account transfer. The banking details are:

Bank: Caixa Geral de Depósitos

Branch: University of Minho - Azurém

NIB (account number): 0035 0130 00001457300 06

DEADLINES

The absolute deadline for the receipt of registrations is April 30, 2001. The number of participants is limited to 80 and, therefore, early registration is advised.

For more information on this event, to be held in Guimarães, please visit the site

<http://www.dep.uminho.pt/SummerSchool/>

ADVANCED SCHOOL ON RECENT DEVELOPMENTS IN LARGE-SCALE SCIENTIFIC COMPUTING

ORGANIZERS

Filomena Dias d'Almeida (Engineering Faculty, Univ. of Porto, Portugal) and Paulo Beleza de Vasconcelos (Economics Faculty, Univ. of Porto, Portugal).

DATE: 3-6 July, 2001.

AIM OF THE SCHOOL

The aims of this advanced school are: to present the state-of-the-art methods and tools to solve large scale linear problems, namely large linear systems and large eigenvalue problems, to bring together specialist researchers on computational mathematics and to encourage the interchange of new ideas, to create a suitable environment for the participants to get acquainted and involved in today's computational mathematics research problems.

TOPICS

- Parallel architectures
- Performance measures, parallel programming paradigms
- Message passing paradigms
- Nonstationary iterative methods for large linear systems
- Direct methods for large sparse linear systems and preconditioners
- Large scale eigenvalue problem
- Linear algebra libraries for large scientific computations

LECTURERS

Claude Brezinski, Univ. Lille, France (to be confirmed)

Jack Dongarra, Univ. of Tennessee and Oak Ridge Nat. Lab., USA

Iain Duff, CERFACS, France and RAL, UK

Joaquim Júdice, Mathematics Dep., Coimbra Univ., Portugal

Osni Marques, LBNL, USA

Francisco Moura, Informatics Dep., Minho Univ., Portugal

Orlando Oliveira, Physics Dep., Coimbra Univ., Portugal

Rui Ralha, Mathematics Dep., Minho Univ., Portugal

PROGRAM AND REGISTRATION FEE

A detailed version of the program will be available soon.

Registration fee: Euro 100. It includes the school documentation and coffee.

TRAVEL INFORMATION AND ACCOMMODATION

Soon we will provide information about travel information and accommodation.

FINANCIAL SUPPORT

CIM - Centro Internacional de Matemática

CMAUP - Centro de Matemática Aplicada da Universidade do Porto (applied for)

FCT - Fundação para a Ciência e Tecnologia (applied for)

FEP - Faculdade Economia do Porto

FEUP - Faculdade Engenharia da Univ. Porto

For the registration form and more information on this event, to be held in Porto, please visit the site

<http://www.fep.up.pt/docentes/pjv/LSC.html>

WORKSHOP ON ELECTRONIC MEDIA IN MATHEMATICS

ORGANIZERS

F. Miguel Dionísio (IST, Technical University of Lisbon, Portugal), José Carlos Teixeira (University of Coimbra, Portugal) and Bernd Wegner (Technische Universität Berlin, Germany).

DATE: 13-15 September, 2001.

AIMS

The workshop will provide an open forum for the exchange of information and presentations on electronic media in Mathematics for mathematicians and people using mathematics in applications. Three main subject areas are to be covered:

- a) Computational devices for mathematics: Mathematica, Maple and other general software packages,

special packages in numerical mathematics, computational algebra, computational geometry, proof theory and their applications in mathematical research, support for teaching mathematics, support for applications of mathematics in industry.

- b) Visualization and applications of CAD: visualization of geometric and physical objects, animation software, CAD-package and geometric construction.
- c) Electronic information and communication: electronic publishing, preprint-servers and preprint databases, electronic document delivery, electronic access to software, literature data bases, organization of information in the web. The event will take place in Coimbra.

WORKSHOP - FROM BROWNIAN MOTION TO INFINITE DIMENSIONAL ANALYSIS

ORGANIZERS

A. B. Cruzeiro (University of Lisbon, Portugal) and L. Streit (University of Bielefeld, Germany).

DATE: 18-22 September 2001.

AIMS

The need for the development of infinite dimensional Analysis on spaces of continuous paths or of less regular objects such as distributions has become evident mainly by physical motivations (e.g. Quantum Mechanics and Quantum Field Theory). These spaces are endowed with

probability measures, one of the more regular cases being the law of Brownian motion. In this case the Itô calculus provides the underlying techniques to manipulate irregular functionals of the paths and the corresponding infinite dimensional Analysis has developed intensively in the past recent decades giving rise to important results in Mathematics, but also applications outside the initial framework (e.g., Filtering and Control Theory, Financial Mathematics). More recently, special attention has been given to the geometry of (curved) spaces. The goal of the workshop is to bring together various approaches to infinite dimensional Analysis.

CIM NEWS

JOSÉ SOUSA PINTO

Professor José Sousa Pinto, Secretary of the CIM General Assembly since 1996, died in August 2000 after a long illness. He was a Professor at Aveiro University, and his main research interest was nonstandard analysis

and generalized functions. A book by Prof. Sousa Pinto, *Métodos Infinitesimais de Análise Matemática*, was published by the Gulbenkian Foundation in 2000.

CIM GOVERNING BODIES FOR 2001-2004

GENERAL ASSEMBLY

Maria Paula de Oliveira, Univ. Coimbra (Chair)
Luís Sanchez, Univ. Lisboa (Secretary)
António Caetano, Univ. Aveiro (Secretary)

AUDITING BOARD

Estelita Vaz, Univ. Minho (Chair)
José Basto Gonçalves, Univ. Porto
Maria Paula Rocha Malonek, Univ. Aveiro

(The members of the executive board were listed in the Bulletin no. 7.)

CIM PROGRAM FOR 2001-2004

The new CIM executive board, chaired by Prof. Luís Trabucho de Campos (Universidade de Lisboa, Portugal), took office in July 2000. The board intends to continue CIM's activity of promoting and sponsoring several kinds of international meetings on mathematics and its applications. A central position in CIM's scientific program is occupied by the *Thematic Terms*. The subjects for the next four years are:

- Mathematics and Computation (2001)
- Mathematics and Biology (2002)
- Mathematics and Engineering (2003)
- Mathematics and the Environment (2004)