At the meeting on 19th April 1998 the CIM Scientific Council gave their approval to the following events:

Debate on University teaching of Mathematics in Portugal

ORGANIZERS

João Filipe Queiró - Universidade de Coimbra
Luís Trabucho - Universidade de Lisboa

DATE: 6, 7 February 1999

STRUCTURE

CIM has decided to organize a debate on University teaching of Mathematics in Portugal, to discuss the new problems and challenges to Mathematics and its teaching in our country.

Possible subjects for discussion are the following:

- The teaching of mathematics for applications: relevant problems, employment issues, organization of undergraduate and graduate studies. The teaching of mathematics for Science and Engineering.

- The teaching of mathematics for teacher training.

- The use of technology in mathematics teaching at all levels.

- Institutional matters: University organization in Portugal. The organization of the mathematical community in Portugal.

The debate will consist of sessions by subject, with invited presentations followed by open discussion.

Geometric and Combinatorial Methods in the Selfadjoint Spectral Sum Problem

ORGANIZERS

Ana Paula Santana - Universidade de Coimbra
E. Marques de Sá - Universidade de Coimbra
João Filipe Queiró - Universidade de Coimbra

DATE: Spring 1999

STRUCTURE

Meeting or sequence of lectures gathering experts from different fields who have worked on the problem.

Thematic Term on Theoretical and Computational Fluid Dynamics

Observatório Astronómico, Coimbra, Portugal

ORGANIZING COMMITTEE

Adélia Sequeira, I. S. T., Lisbon (Portugal)
Hugo Beirão da Veiga, Universidade de Pisa, (Italy)
Juha Videman, I. S. T., Lisbon (Portugal)

PERIOD: May, June and July, 1999.

MAIN TOPICS

Mathematical modeling, analysis and numerical simulation of fluid flows including:

Compressible and incompressible viscous flows;
Viscoelastic and non-Newtonian fluid flows;
Free-surface flows;
Turbulent flows;
Polymeric liquid crystals;
Applications to industrial problems.

SCIENTIFIC OBJECTIVES

The main objective of the trimester is to promote research and to establish scientific contacts between foreign and portuguese specialists working in this area. Some of the activities of the Thematic Term are further aimed to encourage young doctoral and post-doctoral students in developing investigation in this challenging field. In order to reach these goals we plan to:

- Maintain a group of researchers (portuguese and foreign) working together in the premises of the Centro Internacional de Matemática in Coimbra during the entire trimester. Their results will be discussed in a weekly seminar.

- Organize in Coimbra an International Workshop on Mathematical and Numerical Modeling of Non-Newtonian Fluids with Applications to Liquid Crystals in the end of July, 1999.

- Organize three Summer Schools probably in the region of Lisbon on the following topics:

Computational Fluid Dynamics
(Chairman: A. Quarteroni);
Theoretical Navier-Stokes Equations
(Chairman: H. Beirão da Veiga);
Industrial Mathematics
(Chairmen: A. Anile and A. Fasano).

Each school has one week duration and includes 20 hours of lectures divided among 4 specialists suggested by the chairmen.

- Offer 30 scholarships, in particular to portuguese post-graduate students, to attend the Summer Schools.

Summer School on Differential Geometry

ORGANIZERS

Joana M. Nunes da Costa - Univ. de Coimbra
F. J. Craveiro de Carvalho - Univ. de Coimbra
A. M. d'Azevedo Breda - Universidade de Aveiro
Bernd Wegner - Technische Universität Berlin

DATE: 3/7 September 1999

STRUCTURE

12 hour course on Geometry of Submanifolds by Dirk Ferus - Technische Universität Berlin

12 hour course on Poisson and Symplectic Geometry by I. Vaisman - Haifa

Four 1 hour conferences, one per day, by

David R. J. Chillingworth - Southampton
Sheila Carter - Leeds
Jean Pierre Françoise - Paris
Bernd Wegner - Berlin

Sessions where participants can talk on their own work.

3

Workshop on Statistical Modelling: Extreme Values and additive Laws

ORGANIZERS

M. Ivette Gomes - Universidade de Lisboa
Dinis Pestana - Universidade de Lisboa

DATE: 4/7 October 1999

STRUCTURE

The scientific programme will include three or four invited papers, three intensive courses (6 hours each) on areas relevant to the topic of the Workshop and several contributed papers.

The courses are

Extremes and Exceedance Measures for Stochastic Processes by M. R. Leadbetter
Semi-parametric Inference by L. de Haan
Regular Variation and Applications by J. Teugels

The invited papers are

Generalized Convolutions and Domains of Attraction by N. H. Bingham
Applications of Extremes to Climatology by J. Tawn
Analytic Tools in Probability Research by D. N. Shanbhag.

The following two proposals are still under consideration by the Scientific Council due to some lack of information at the time of the meeting.

Singularities in Algebraic Geometry and String Theory

ORGANIZERS

Carlos Florentino - Inst. Superior Técnico, Lisbon
Margarida Mendes Lopes - Universidade de Lisboa
José Cidade Mourão - Inst. Sup. Técnico, Lisbon
Orlando Neto - Universidade de Lisboa
João Pimentel Nunes - Inst. Sup. Técnico, Lisbon

DATE: 12 - 23 July 1999

STRUCTURE

Six courses, three per week, as follows:

Introduction to Singularities and their Resolution
Toric Varieties and Mirror Symmetry
3-Folds and Classification of Varieties
Moduli Spaces of Vector Bundles
The Role of Singularities in Quantum Field Theory and in Superstring Theory (2 courses)

Summer School on Category Theory

ORGANIZERS

Manuela Sobral - Universidade de Coimbra
Maria Manuel Clementino - Univ. de Coimbra
Jorge Picado - Universidade de Coimbra
Lurdes Sousa - Instituto Politécnico de Viseu

DATE: 6 - 10 July 1999

STRUCTURE

Three 7 hour courses on the following topics:

Theoretical Aspects of Computing
n-Categories
Algebraic Theories