AIMS AND SCOPE

In last decades the research related with object modeling has been a source of hard work in several distinct areas of science, such as mechanical, physics, informatics and mathematics.

One major application of object modeling is in medical area. For instance, it is possible to consider the use of statistical or physical procedures on medical images in order to model the represented objects. Its modeling can have different goals: 3D shape reconstruction, object segmentation in 3D or 2D images, data interpolation, data registration, data compression, simulation, temporal tracking, motion and deformation analysis, virtual reality, computer-assisted therapy and therapy planning, tissue characterization, etc.

The main goal of the ECCOMAS Thematic Conference on Computational Vision and Medical Image Processing consists in the provision of a comprehensive forum for discussion on the current state-of-the-art in the these fields. The Conference will enable:

. Processing and Analysis of Medical Images
. Tracking and Analyze Objects in Medicine
. Deformable Objects in Medical Images
. Segmentation of Objects in 2D/3D Images
. 3D Reconstruction from Medical Images
. Application of Rapid Prototyping in Medicine
. Signal Processing in Medicine
. Data Interpolation, Registration, Acquisition and Compression in Medicine
. Objects Simulation in Medicine
. Virtual Reality in Medicine
. Computer Aided Diagnosis, Surgery, Therapy and Treatment
. Computational Bioimaging and Visualization
. Software Development for Medical Imaging
. Telemedicine Systems and their Applications

The Conference will bring together several researchers from around the world representing several fields of study related to Computational Vision and Medical Image Processing. The expertise will span a broad range of techniques, such as finite element method, meshless methods, modal analyses, stochastic methods, principal and independent components analyses and distribution models.

LOCATION AND ACCOMODATIONS

Porto has many hotels served by public transports to the Faculty of Engineering of the University of Porto. We recommend that you contact directly the hotels for reservation of your stay in the city. The usual prices are as follows:

	SINGLE ROOM/PERSON	DOUBLE ROOM/PERSON
Hotels ***	80-100 Euro	50-60 Euro
Hotels ****	110-140 Euro	70-80 Euro

ORGANIZING COMMITTEE

João Manuel R. S. Tavares (Chairperson)
Faculty of Engineering of University of Porto, Portugal

Renato M. Natal Jorge (Chairperson)
Faculty of Engineering of University of Porto, Portugal

Maria Amélia Duarte Ferreira
Faculty of Medicine of University of Porto, Portugal

Francisco J. Perales López
University of Balears Island, Spain

Conference Secretariat
Mrs. Júlia Meira
IDMEC
Faculdade de Engenharia da Universidade do Porto
Rua Dr Roberto Frias
4200-465 Porto, Portugal
Tel: +351 225 081 491
Fax: +351 225 082 201
E-mail: julia@fe.up.pt

CONFERENCE TOPICS

The proposed thematic sessions are the following :

. Computational Vision
. Medical Imaging
. Physics of Medical Imaging
. Signal and image Processing
. Tracking and Analysis of Movement
. Simulation and Modeling
. Image Acquisition
. 3D Shape Reconstruction
. Objects Segmentation
. Objects Matching
. Data Interpolation, Registration and Compression
. Mesh Generation and Processing
. Rapid Prototyping from Images
. Telemedicine
. Virtual Reality
. Computer Aided Diagnosis, Surgery, Therapy and Treatment
. Computational Bioimaging and Visualization
. Software Development
. GRID Computing

17-19TH OCTOBER 2007

VIPIMAGE

THEMATIC CONFERENCE ON COMPUTATIONAL VISION AND MEDICAL IMAGE PROCESSING

ECCOMAS

WWW.FE.UP.PT/VIPIMAGE

CONFERENCE CO-CHAIRS

JOÃO MANUEL R. S. TAVARES,
FACULTY OF ENGINEERING
OF UNIVERSITY OF PORTO, PORTUGAL

RENATO M. NATAL JORGE,
FACULTY OF ENGINEERING
OF UNIVERSITY OF PORTO, PORTUGAL

U. PORTO FACULDADE DE ENGENHARIA UNIVERSIDADE DO PORTO — FEUP

U. PORTO FMUP FACULDADE DE MEDICINA UNIVERSIDADE DO PORTO

FCT Fundação para a Ciência e a Tecnologia

APM|AC

PORTO | PORTUGAL FACULDADE DE ENGENHARIA DA UNIVERSIDADE DO PORTO

INVITED LECTURERS

. **CHANDRAJIT BAJAJ**
**"Automatic Generation of Computer Models
from Multi-modal Bio-medical Imaging"**
University of Texas, USA

. **CHRIS JOHNSON**
"Computational Bioimaging and Visualization"
University of Utah, USA

. **HERVÉ DELINGETTE**
"From Geometrical Models to Physiological Models of the Human Body"
The French Nat. Inst. for Research in Computer Science and Control, France

. **IOANNIS A. KAKADIARIS**
"Latest advances in Cardiovascular Informatics"
University of Houston, USA

. **JORGE S. MARQUES**
"Robust Algorithms for Deformable Contours"
Instituto Superior Técnico, Portugal

. **JUAN J. VILLANUEVA**
"Image Sequence Evaluation"
Autonomous University of Barcelona, Spain

. **LAURENT COHEN**
"Fast Surface Segmentation and remeshing by finding geodesics"
Universite Paris Dauphine, France

. **MARIO FORJAZ SECCA**
"Processing of Simultaneous Acquisition of EEG and fMRI"
Universidade Nova de Lisboa, Portugal

. **TIM COOTES**
**"Automatic Construction of Statistical Shape Models using
Non-Rigid Registration"**
University of Manchester, UK

REGISTRATION

Early registration fee must be received until 31st May 2007

	EARLY	LATE
IACM/ECCOMAS Members	350 Euro	400 Euro
Non-IACM/ECCOMAS Members	400 Euro	450 Euro
Students	175 Euro	200 Euro

The fees cover
. Book of proceedings
. Participation in all the scientific sessions
. Coffee breaks
. Banquet
. Welcome reception

Accompanying Persons

Early Registration	150 Euro
Late Registration	180 Euro

The fees for Accompanying Persons covers: welcome reception and banquet.

SCIENTIFIC COMMITTEE

. **Adelino F. Leite-Moreira,** Portugal
. **Adérito Marcos,** Portugal
. **Alberto De Santis,** Italy
. **Ana Mafalda Reis,** Portugal
. **Antonio Susín Sánchez,** Spain
. **Arrate Muñoz Barrutia,** Spain
. **Augusto Goulão,** Portugal
. **Bernard Gosselin,** Belgium
. **Bogdan Raducanu,** Spain
. **Chandrajit Bajaj,** USA
. **Chang-Tsun Li,** UK
. **Charles A. Taylor,** USA
. **Chris Johnson,** USA
. **Constantine Kotropoulos,** Greece
. **Daniela Iacoviello,** Italy
. **Demetri Terzopoulos,** USA
. **Dinggang Shen,** USA
. **Djemel Ziou,** Canada
. **DRJ Owen,** UK
. **Eduardo Borges Pires,** Portugal
. **Enrique Alegre Gutiérrez,** Spain
. **Eugenio Oñate,** Spain
. **Francisco Perales,** Spain
. **Georgeta Oliveira,** Portugal
. **Gerald Schaefer,** UK
. **Gerhard A. Holzapfel,** Sweden
. **Helcio R. B. Orlande,** Brazil
. **Hélder Araújo,** Portugal
. **Hélder C. Rodrigues,** Portugal
. **Hemerson Pistori,** Brazil
. **Henrik Aanæs,** Denmark
. **Hervé Delingette,** France
. **Ian Jermyn,** France
. **Ioannis A. Kakadiaris,** USA
. **Ioannis Pitas,** Greece
. **Isaac Cohen,** USA
. **Isabel M. A. P. Ramos,** Portugal
. **J. Paulo Vilas-Boas,** Portugal
. **Jan C. De Munck,** Netherlands
. **Jan Koenderink,** Netherlands
. **João A. C. Martins,** Portugal
. **João M. C. S. Abrantes,** Portugal
. **João Manuel R. S. Tavares,** Portugal
. **João Martins Pisco,** Portugal
. **João Paulo Costeira,** Portugal
. **Joaquim A. Jorge,** Portugal
. **Jorge A. C. Ambrósio,** Portugal
. **Jorge M. G. Barbosa,** Portugal
. **Jorge S. Marques,** Portugal
. **José António Simões,** Portugal
. **José Carlos Príncipe,** USA
. **Juan J. Villanueva,** Spain
. **Laurent Cohen,** France
. **Luís Amaral,** Portugal
. **Luís Paulo Reis,** Portugal
. **Lyuba Alboul,** UK
. **Manuel Doblaré,** Spain
. **Manuel González Hidalgo,** Spain
. **Manuel Laranjeira,** Portugal
. **Manuele Bicego,** Italy
. **Maria A. D. Ferreira,** Portugal
. **Mario Forjaz Secca,** Portugal
. **Michael Lew,** Netherlands
. **Miguel Velhote Correia,** Portugal
. **Nicholas Ayache,** France
. **Nicolai Petkov,** The Netherlands
. **Patrick Dubois,** France
. **Rainald Lohner,** USA
. **Rania F. El Sayed,** Egypt
. **Renato M. Natal Jorge,** Portugal
. **Reneta Barneva,** USA
. **Rudini M. Sampaio,** Brazil
. **Sabina Tangaro,** Italy
. **Sidharta Gautama,** Belgium
. **Sónia I. Gonçalves-Verheij,** Netherlands
. **Steffen Härtel,** Chile
. **Teresa Mascarenhas,** Portugal
. **Thomas J. R. Hughes,** USA
. **Tim Cootes,** UK
. **Tony Chan,** USA
. **Vaclav Skala,** Czech Republic
. **Valentin Brimkov,** USA
. **Yongjie Zhang,** USA

IMPORTANT DATES

15th March 2007 :DEADLINE FOR EXTENDED ABSTRACTS
15th April 2007 :AUTHORS NOTIFICATION
15th May 2007 :DEADLINE FOR LECTURES AND FINAL PAPERS
31st May 2007 :EARLY REGISTRATION FEE

PROCEEDINGS

Invited lectures and all papers will be published in the conference proceedings.
It is the intention of the organizers to publish the proceedings book by the Taylor & Francis Group.
All extend abstracts submitted will be subjected to a review process by at least three members of the conference scientific committee.
The final (full) papers will be reviewed by the organizing committee.

All submissions should be in Adobe Acrobat (.pdf).
Extended abstracts (for submission): 2-4 A4 pages in two columns must be considered.
The abstract must provide names and affiliation, and should include a title and keywords.