AIMS AND SCOPE

Computational methodologies of signal processing and analyses, namely considering 2D and 3D images, are commonly used in different application of the human society. For instances, more Computational Vision systems are used for surveillance tasks, traffic analysis, recognition process, inspection purposes, human-machine interfaces, 3D vision and deformation analysis.
One of the main characteristics of the Computational Vision domain is its inter-multidisciplinary. In fact, in this domain are usually used methodologies of several more basic sciences, such as Informatics, Mathematics, Statistics, Psychology, Mechanics and Physics. Besides this inter-multidisciplinary characteristic, one of the main reasons that contributes for the continually effort done in this domain of the human knowledge is the number of applications that exist in the 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 structures. This modeling can have different goals, for example: shape reconstruction, organs segmentation in images, images registration, behavior simulation, motion and deformation analysis, virtual reality, computer-assisted therapy or tissue characterization.

The main objective of these ECCOMAS Thematic Conferences on Computational Vision and Medical Image Processing is to promote a comprehensive forum for discussion on the recent advances in the related fields trying to identify widespread areas of potential collaboration between researchers of different sciences.

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

ACCOMODATIONS

Hotel reservation has been arranged in a number of 3 and 4 stars hotels conveniently located at the Porto center or near FEUP. The congress special prices are as follows:

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

ORGANIZING COMMITTEE

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

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: +351 225 574 167
Fax: +351 225 574 170
E-mail: julia@fe.up.pt

CONFERENCE TOPICS

The proposed thematic sessions are the following (but not limited)**:**

. Signal and Image Processing
. Computational Vision
. Medical Imaging
. Physics of Medical Imaging
. Tracking and Analysis of Movement
. Simulation and Modeling
. Image Acquisition
. Shape Reconstruction
. 3D Vision
. 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

U.PORTO FEUP FACULDADE DE ENGENHARIA UNIVERSIDADE DO PORTO
U.PORTO FMUP FACULDADE DE MEDICINA UNIVERSIDADE DO PORTO
FCT Fundação para a Ciência e a Tecnologia
APMAC

14-16 OCTOBER 2009

VIPIMAGE

ECCOMAS

II ECCOMAS THEMATIC CONFERENCE ON COMPUTATIONAL VISION AND MEDICAL IMAGE PROCESSING

WWW.FE.UP.PT/VIPIMAGE

CO-CHAIRS
. JOÃO MANUEL R. S. TAVARES (TAVARES@FE.UP.PT)
. RENATO M. NATAL JORGE (RNATAL@FE.UP.PT)
FACULTY OF ENGINEERING OF UNIVERSITY OF PORTO, PORTUGAL

PORTO, PORTUGAL

FACULDADE DE ENGENHARIA DA UNIVERSIDADE DO PORTO

INVITED LECTURERS

. **ALEJANDRO FRANGI**
"From medical imagery to image-based computational physiology"
Pompeu Fabra University, Spain

. **CHRISTOS E. CONSTANTINOU**
"Dynamic Visualization of the Biomechanics of Pelvic Reflexes"
Stanford University School of Medicine, USA

. **DEMETRI TERZOPOULOS**
"Deformable and Functional Models with Applications to Medical Image Analysis"
University of California, Los Angeles, USA

. **JOAQUIM A. JORGE**
"Modeling and Rendering Implicit Surfaces"
Instituto Superior Técnico, Portugal

. **JOSÉ CARLOS PRÍNCIPE**
"Optimal Nonlinear Filters in RKHS"
University of Florida, USA

. **LIONEL MOISAN**
"A-contrario detection models"
Université Paris V, France

. **TONY CHAN**
"Mathematical approaches to some image processing and computer vision problems"
University of California, Los Angeles, USA

REGISTRATION

Early registration fee must be received until 31st May 2009

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

The fees cover:
. Book of proceedings (excepted for students)
. Participation in all scientific events
. Coffee breaks
. Lunch on the conference days
. Welcome reception
. Conference Banquet

Accompanying Persons

Early Registration	150 euros
Late Registration	180 euros

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

SCIENTIFIC COMMITTEE

. **Adelino F. Leite-Moreira,** Portugal
. **Alberto De Santis,** Italy
. **Alejandro Frangi,** Spain
. **Ana Mafalda Reis,** Portugal
. **Antonio Susín Sánchez,** Spain
. **Arrate Muñoz Barrutia,** Spain
. **Barbara Caputo,** Switzerland
. **Begoña Calvo Calzada,** Spain
. **Bernard Gosselin,** Belgium
. **Bogdan Raducanu,** Spain
. **Chandrajit Bajaj,** USA
. **Chang-Tsun Li,** UK
. **Charles A. Taylor,** USA
. **Chris Johnson, USA**
. **Christos E. Constantinou,** USA
. **Constantine Kotropoulos,** Greece
. **Daniela Iacoviello,** Italy
. **Demetri Terzopoulos,** USA
. **Dinggang Shen,** USA
. **Eduardo Borges Pires,** Portugal
. **Enrique Alegre Gutiérrez,** Spain
. **Eugenio Oñate,** Spain
. **Filipa Sousa,** Portugal
. **Francisco Perales,** Spain
. **Gerald Schaefer,** UK
. **Gerhard A. Holzapfel,** Sweden
. **Helcio R. B. Orlande,** Brasil
. **Hélder Araújo,** Portugal
. **Hélder C. Rodrigues,** Portugal
. **Hemerson Pistori,** Brasil
. **Ioannis Pitas,** Greece
. **Isabel M. A. P. Ramos,** Portugal
. **João M. R. S. Tavares,** Portugal
. **João Martins Pisco,** Portugal
. **J. Paulo Vilas-Boas,** Portugal
. **Joaquim A. Jorge,** Portugal
. **Jorge M. G. Barbosa,** Portugal
. **Jorge S. Marques,** Portugal
. **José António Simões,** Portugal
. **José Carlos Príncipe,** USA
. **Jose M. García Aznar,** Spain
. **Juan J. Villanueva,** Spain
. **Laurent Cohen,** France
. **Lionel Moisan,** France
. **Luís Amaral,** Portugal
. **Luís Paulo Reis,** Portugal
. **Manuel Doblaré,** Spain
. **Manuel González Hidalgo,** Spain
. **Manuel Laranjeira,** Portugal
. **Manuele Bicego,** Italy
. **Marcos Rodrigues,** UK
. **Maria A. D. Ferreira,** Portugal
. **Maria Elizete Kunkel,** Germany
. **Mario Forjaz Secca,** Portugal
. **Michel A. Audette,** Germany
. **Miguel Angel Guevara,** Cuba
. **Miguel Tavares da Silva,** Portugal
. **Miguel Velhote Correia,** Portugal
. **Nicholas Ayache,** France
. **Paulo Flores,** Portugal
. **Patrick Dubois,** France
. **Rainald Lohner,** USA
. **Renato M. N. Jorge,** Portugal
. **Reneta P. Barneva,** USA
. **Sabina Tangaro,** Italy
. **Sónia I. Gonçalves-Verheij,** The Netherlands
. **Tony Chan,** USA
. **Valentin Brimkov,** USA
. **Wen Tang,** UK
.**Yongjie Zhan,** USA

THEMATIC SESSIONS

Experts on related conference topics are invited to submit proposals for thematic sessions.
The organizers of the selected thematic sessions will be included in the conference scientific committee and will have a reduced registration fee. They will be responsible for the dissemination of their thematic session, may invite expertise researchers to have invited keynotes during their session and will participate in the review process of the submitted contributions.

IMPORTANT DATES

Deadline for Thematic Sessions proposals: 15th January 2009
Thematic Sessions notification: 31th January 2009
Deadline for Extended Abstracts: 15th March 2009
Authors Notification: 15th April 2009
Deadline for Full Papers: 15th June 2009

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.

The organizers will encourage the submission of extended versions of the accepted papers to related International Journals; namely, for special issues dedicated to the conference. One possibility already confirmed is the International Journal for Computational Vision and Biomechanics (IJCV&B).