



Computational Bioimaging

A Special Track of the
6th International Symposium on Visual Computing (ISVC10)
<http://www.isvc.net>

Scope:

In recent years extensive research has been performed in the visualization and modeling of objects present in digital images. These images originate in various areas of science and engineering, including medicine, biology, astronomy, and physics. In medicine, for example, computational procedures allow us to clearly visualize and model human organs captured in magnetic resonance images. These procedures may have different purposes, such as 3D shape reconstruction, segmentation, motion and deformation analysis, registration, simulation, and enhanced visualization.

The main goal of the proposed Special Track is to bring together researchers working in the related fields of Image Acquisition, Segmentation, Registration, Tracking, Matching, Shape Reconstruction, Motion and Deformation Analysis, Medical Imaging, Software Development, Grid, Parallel and High Performing Computing, to discuss and share ideas that will lead us to set the major lines of development for the near future.

Therefore, the proposed Special Track will gather researchers representing the various fields of Computational Vision, Computational Mechanics, Mathematics, Statistics, and Biomedical Imaging. This track intends to contribute more realistic computational models extracted from images of living organisms and attempts to establish a bridge between practitioners and researchers from these diverse fields.

Topics:

The topics of interest include but are not limited to the following areas:

- Image Processing and Analysis for Computational Bioimaging;
- Segmentation, Reconstruction, Tracking and Motion Analyse in Biomedical Images;
- Biomedical Signal and Image Acquisition and Processing;
- Computer Aided Diagnosis, Surgery, Therapy, Treatment and Telemedicine Systems;
- Software Development for Computational Bioimaging;
- Grid and High Performance Computing for Computational Bioimaging.

Paper Submission Procedure:

Papers submitted to ISVC 2010 Special Track must not have been previously published and must not be currently under consideration for publication elsewhere. Manuscripts should be submitted in camera-ready format and should not exceed **12 pages**, including figures and tables (see <http://www.isvc.net>

for details). All papers accepted will appear in the symposium proceedings which will be published by **Springer-Verlag** in the **Lecture Notes in Computer Science (LNCS)** series.



Important Dates:

Paper submissions	July 12, 2010
Notification of acceptance	August 31, 2010
Final camera ready paper	September 15, 2010
Advance Registration	September 15, 2010
ISVC10 Symposium	November 29 - December 1, 2010

Organizers:

João Manuel R. S. Tavares, University of Porto, Portugal, tavares@fe.up.pt
Renato Natal Jorge, University of Porto, Portugal, rnatal@fe.up.pt
Alexandre Cunha, California Institute of Technology, USA, cunha@caltech.edu

Committee:

Alberto De Santis, Università degli Studi di Roma "La Sapienza", Italy
Alexandre Cunha, California Institute of Technology, USA
Ana Mafalda Reis, University of Porto, Portugal
Arrate Muñoz Barrutia, University of Navarra, Spain
Begoña Calvo, University of Zaragoza, Spain
Christos E. Constantinou, Stanford University School of Medicine, USA
Daniela Iacoviello, Università degli Studi di Roma "La Sapienza", Italy
Daniela Ushizima, Lawrence Berkeley National Lab., USA
Djemel Ziou, University of Sherbrooke, Canada
Eduardo Borges Pires, Instituto Superior Técnico, Portugal
Fiorella Sgallari, University of Bologna, Italy
Francisco Perales, Balearic Islands University, Spain
Guoping Qiu, University of Nottingham, UK
Hanchuan Peng, Howard Hughes Medical Institute, USA
Hemerson Pistori, Dom Bosco Catholic University, Brazil
Igor Yanovsky, Jet Propulsion Laboratory, USA
Jason Corso, SUNY at Buffalo, USA
João Manuel R. S. Tavares, University of Porto, Portugal
Javier Melenchón Maldonado, Open University of Catalonia, Spain
Jorge S. Marques, Instituto Superior Técnico, Portugal
Jose M. García Aznar, University of Zaragoza, Spain
Luminita Vese, University of California at Los Angeles, USA
Luís Paulo Reis, University of Porto, Portugal
Marc Thiriet, Université Pierre et Marie Curie (Paris VI), France
Mahmoud El-Sakka, The University of Western Ontario London, Canada
Manuel González Hidalgo, Balearic Islands University, Spain
Metin N. Gurcan, Ohio State University, USA
Patrick Dubois, Institut de Technologie Médicale, France
Renato M. N. Jorge, University of Porto, Portugal
Reneta P. Barneva, State University of New York, USA
Roberto Bellotti, University of Bari, Italy

Sabina Tangaro, National Institute of Nuclear Physics, Italy
Susana Branco Silva, University of Lisbon, Portugal
Valentin Brimkov, State University of New York, USA
Yongjie Zhan, Carnegie Mellon University, USA