



EDITORIAL NOTE

2nd Conference of Computational Interdisciplinary Sciences

This issue of the JCIS contains peer-reviewed papers that are part of the proceedings from the 2nd Conference of Computational Interdisciplinary Sciences (CCIS), held on *Hotel Misión Guanajuato*, in the beautiful, World Heritage Historic Town of Guanajuato, Mexico, in July-August 2012 (<http://www.lac.inpe.br/ccis2012/>).

We are very pleased with the progress achieved by the Pan-American Association of Computational Interdisciplinary Sciences (PACIS), especially on maintaining and improving the publication of the JCIS and on establishing a regularity in the organization of a bi-annual edition of the CCIS, with the clear intention to sum efforts, encourage scientific collaborations and promote education by spreading itself along the American continent. Beyond pinning a node of the PACIS on Mexico, the 2nd CCIS also managed to join experts and students from different areas of knowledge: Mathematics, Engineering, Astronomy, Chemistry, Geography, Meteorology, Biology, Physics and Health Sciences, all sharing the common interest in Scientific Computing.

The articles collected in the issue bring interesting computational interdisciplinary topics, slightly biased toward Astronomy and Astrophysics applications. These are: the already mature area of Artificial Neural Networks applied to the automatic classification of galaxy electromagnetic spectra in the infrared band; an Open Source Code (Xitris) for acquiring, displaying, compressing and publishing (via Internet) digital data in real time and its application to handle data from Solar Radio Interferometers; improvements on a code for modeling stellar and planetary atmospheres (PHOENIX) focusing on the solution of the radiative transfer equation in a 3D framework and a time-dependent treatment; and results on numerical simulations for studying the role of topography in the generation of Sumatra squalls (meteorological event characterized by a sudden, sharp wind-speed increase).

We are very grateful to the authors that contributed to this issue and referees who dedicated their time to give support to the journal, ensuring the improvement and quality of its publications. We also thank the JCIS Editorial Office team, particularly to Diego H. Stalder Díaz, for their invaluable work dedicated to the journal. Furthermore, we give special thanks to members of the Local Organizing Committee, the Steering Committee, and the Scientific Advisory Committee for their effort to organize and conduct the Conference. The PACIS is also indebted to all the sponsors that made possible the logistics of the 2nd CCIS: the Rectoría of the *Campus Guanajuato*, the Dirección of the *División de Ciencias Naturales y Exactas* and the *Dirección de Apoyo a la Investigación y al Posgrado* (DAIP) of the *Universidad de Guanajuato* (UG, Mexico), the *Consejo Nacional de Ciencia y Tecnología* of Mexico (CONACyT), the *Consejo de Ciencia y Tecnología del Estado de Guanajuato* (CONCyTEG), the HPC-LUFAC Computation Company, the *Oficina de Convenciones y Visitantes* (OCV) of the Guanajuato Municipality, the *Universidad Nacional de Asunción* (UNA, Paraguay), the *Coordenação de Aperfeiçoamento de Pessoal de Nível Superior* (CAPES, Brazil), and finally the *Pró-reitoria de Pós-graduação e Pesquisa* of the *Universidade Federal do Rio de Janeiro* (UFRJ, Brazil), who provided financial support for the publication of this issue.

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(Guest Editor)
Chair of CCIS 2012