

Guest Editorial

Special Issue – VR and HCI Labs

This special issue of the SBC Journal on 3D Interactive Systems is dedicated to the dissemination of the activities of several groups working on virtual reality, 3D graphics, 3D interaction, multimodal interaction and related themes in Brazil and other countries. Through this initiative the SBC Journal on 3D Interactive Systems is innovating: it is the first time that a Brazilian journal publishes, in a single issue, information regarding different laboratories for prospective students and potential collaborators.

The papers selected for this issue introduce Virtual Reality, Graphics and Human Computer Interaction laboratories, their mission and goals, as well as interesting results from their recent projects. This will benefit the scientific community as a whole. It is a special opportunity for the different research groups to introduce themselves, describe their interests and areas of activity, as well as their research directions, thus enabling contacts and potential cooperation.

We received 30 manuscripts and, after a peer review phase, we selected 27 technical communications. Most of the VR and CG research laboratories in Brazil are represented; some are more dedicated to virtual reality and graphics applications, others also work with image processing for improving interaction. We also received interesting contributions from laboratories in other countries like Czech Republic, Denmark, Germany, New Zealand, Spain, Switzerland and United Kingdom, as well as from a trans-national group involving Belgium, France, Italy, Germany, Georgia, Hungary, Netherlands, Poland, Spain and United Kingdom.

In a general way, readers will find information about research on interaction devices, gesture recognition-based interaction, collaborative interaction, and innovative ways of interaction with tablets and walls. Also several 3D interactive visualization and rendering techniques are well explored by VR and CG researchers. Applications related to health care, chemistry, arts, among others, are some of the topics that the labs are pursuing in their projects.

All the groups are interested in receiving students and establishing collaboration for new projects. Thus, we hope the content of the papers here presented can help researchers in finding partners and, in this way, improving their contribution to the fields of VR, CG and HCI.

We would like to express our thanks to the editor-in-chief, Luciana Nedel, for inviting us to be guest editors, but mainly for shaping the idea of this special issue. We also thank the reviewers for their help with insightful revisions, and the authors for their interesting contributions as well as for the willingness in the whole process of preparing this issue.

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Guest Editors



Carla Maria Dal Sasso received her PhD and MSc degrees in Computer Science from Federal University of Rio Grande do Sul (UFRGS, Brazil), in 1994 and 1982, respectively. She also graduated in Informatics at the same university, in 1977. During 1996 she was a visiting scholar at both International Computer Science Institute and E.O. Lawrence Berkeley

National Laboratory, in Berkeley, California. Since 1980, she has been a professor in the Graphics Group at the Institute of Informatics, UFRGS. Her research interests range from the development of novel data visualization techniques as well as the evaluation of 2D and 3D interaction in several applications. She has been active in all these areas, supervising many students in their bachelor and MSc projects as well as PhD thesis. She has also been responsible for several research projects including international cooperation with Université Paul Sabatier (Toulouse) e INRIA (Saclay and Rocquencourt), in France, Université Catholique Louvain la Neuve, Belgium.



Fátima L. S. Nunes is professor at School of Arts, Sciences and Humanities of the University of So Paulo (EACH/USP), also participates of the Graduation Program of Polytechnic School of USP. She is Bachelor in Computer Science and PhD in Sciences, in the Computational Physics area. She conducts researches in the virtual reality, image processing and content-based image retrieval (CBIR) areas, acting primarily on building tools for healthcare. Her main publications are related to virtual reality applications for medical training and CBIR related to computer-aided diagnosis. She is a member of the Special Committee of Virtual Reality and Special Committee of Computer Applied to Health, both of the Brazilian Computer Society. She is also a member of the Brazilian National Institute of Science and Technology in the group of Medicine Assisted by Scientific Computing.

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