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Hybrid Systems: Computation and Control

10th International Conference, HSCC 2007
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Proceedings



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Preface

This volume contains the proceedings of the 10th International Conference on Hybrid Systems: Computation and Control (HSCC 2007) held in Pisa, Italy, April 3-5, 2007. The conference, tenth in a series of successful annual meetings, was dedicated to research in embedded reactive systems involving the interplay between symbolic/switching and continuous dynamical behaviors, and attracted academic as well as industrial researchers to exchange information on the latest developments of theoretical advancements and applications for the design, analysis, control, optimization, and implementation of hybrid systems. This year, the scope was broadened to include, along with traditional HSCC topics, areas of research where the convergence of information and control is currently hottest. Embedded and real-time control and control of/over communication networks are two such areas.

The previous workshops in the HSCC series were held in Berkeley, USA (1998), Nijmegen, The Netherlands (1999), Pittsburgh, USA (2000), Rome, Italy (2001), Palo Alto, USA (2002), Prague, Czech Republic (2003), Philadelphia, USA (2004), Zurich, Switzerland (2005), and Santa Barbara, USA (2006). We were honored to co-chair this prestigious event, which has marked the history of the convergence of computation and control science and engineering; and even more so, as this was the tenth anniversary of HSCC.

The program consisted of 3 keynote speeches, 44 regular papers, and 39 short papers selected from 167 regular submissions. The program covered topics such as tools for analysis and verification, control and optimization, modeling, and engineering applications. More details about the conference, the program, and other activities are available on the conference Web site <http://hsc07.dii.unisi.it>.

We would like to thank the Program Committee members and reviewers for an excellent job of evaluating the submissions and participating in the online Program Committee discussions. Special thanks go to Ed Brinksma (Embedded Systems Institute, Eindhoven, The Netherlands), Shankar Sastry (University of California, Berkeley, USA), and John A. Stankovic (University of Virginia, USA) for their participation as keynote speakers. We are also grateful to the HSCC Steering Committee for helpful guidance and support. We would like to express our gratitude to HYCON and ARTIST, Networks of Excellence of the Sixth Framework Programme of the European Commission, for sponsoring the event.

January 2007

Alberto Bemporad
Antonio Bicchi
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