Preface

This volume contains the proceedings of the *Sixth Workshop on Hybrid Systems: Computation and Control* (HSCC 2003), which was held in Prague, during April 3–5, 2003. The Hybrid Systems workshops attract researchers interested in the modeling, analysis, control, and implementation of systems which involve the interaction of both discrete and continuous state dynamics. The newest results and latest developments in hybrid system models, formal methods for analysis and control, computational tools, as well as new applications and examples are presented at these annual meetings.

The Sixth Workshop continued the series of workshops held in Grenoble, France (HART'97), Berkeley, California, USA (HSCC'98), Nijmegen, The Netherlands (HSCC'99), Pittsburgh, Pennsylvania, USA (HSCC 2000), Rome, Italy (HSCC 2001), and Stanford, California, USA (HSCC 2002). Proceedings of these workshops have been published by Springer-Verlag in the Lecture Notes in Computer Science (LNCS) series.

This year we assembled a technical program committee with a broad expertise in formal methods in computer science, control theory, applied mathematics, and artificial intelligence. We received a set of 75 high-quality submitted papers. After detailed review and discussion of these papers by the program committee, 36 papers were accepted for presentation at the workshop, and the final versions of these papers appear in this volume.

As is the tradition established by previous workshops, the accepted papers span an exciting range of topics, including the "hybridization" of traditional control concepts such as identification, observability and stability, computational techniques for verifying hybrid systems by numerical as well as symbolic methods, new formalisms for expressing systems and their specifications, and an impressive list of papers demonstrated the applicability of hybrid technology to domains such as automotive control, the immune system, electrical circuits, operating systems, and human brains. We hope the reader will find them interesting.

We thank our Program Committee for their technical support in reviewing the papers. Other people who helped us include Ewa Maja Miliszewska who helped in the design of the web page, Nicolas Kowalski who maintained the Start server for submission and evaluation of papers, Jaroslav Dolezal and Tatana Machova from Honeywell Laboratories at Prague who took care of the local organization and, last but not least, Eugene Asarin for his help in editing this volume. Much of the work appearing in these proceedings was done in the framework of European IST projects on hybrid systems and we would like to thank Alkis Konstantellos from the European Commission for his ongoing support for the hybrid cause.

April 2003

Oded Maler
Amir Pnueli

Organization

HSCC 2003 was organized by Verimag laboratory of Grenoble together with Honeywell Prague laboratories.

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