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Power and Timing Modeling, Optimization and Simulation

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Preface

Welcome to the proceedings of PATMOS 2006, the 16th in a series of international workshops. PATMOS 2006 was organized by LIRMM with CAS technical co-sponsorship and CEDA sponsorship.

Over the years, the PATMOS workshop has evolved into an important European event, where researchers from both industry and academia discuss and investigate the emerging challenges in future and contemporary applications, design methodologies, and tools required for the development of upcoming generations of integrated circuits and systems. The technical program of PATMOS 2006 contained state-of-the-art technical contributions, three invited talks, a special session on hearing-aid design, and an embedded tutorial. The technical program focused on timing, performance and power consumption, as well as architectural aspects with particular emphasis on modeling, design, characterization, analysis and optimization in the nanometer era.

The Technical Program Committee, with the assistance of additional expert reviewers, selected the 64 papers presented at PATMOS. The papers were organized into 11 technical sessions and 3 poster sessions. As is always the case with the PATMOS workshops, full papers were required, and several reviews were received per manuscript.

Beyond the presentations of the papers, the PATMOS technical program was enriched by a series of speeches, offered by world class experts, on important emerging research issues of industrial relevance. Giovanni De Micheli spoke on "Nanoelectronics: Challenges and Opportunities", Christian Piguet spoke on "Static and Dynamic Power Reduction by Architecture Selection", Peter A. Beerel spoke on "Asynchronous Design for High-Speed and Low-Power Circuits" and Robin Wilson spoke on "Design for Volume Manufacturing in the Deep Submicron Era".

We would like to thank the many people who voluntarily worked to make PATMOS 2006 possible, the expert reviewers, the members of the technical program and steering committees, and the invited speakers, who offered their skill, time, and deep knowledge to make PATMOS 2006 a memorable event. Last but not least we would like to thank the sponsors of PATMOS 2006, ATMEL, CADENCE, Mentor Graphics, STMicroelectronics, CNRS, and UM2 for their support.

September 2006

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