

Preface

We are pleased to present this collection of papers from the Second Workshop on Intelligent Memory Systems.

Increasing die densities and inter-chip communication costs continue to fuel interest in intelligent memory systems. Since the First Workshop on Mixing Logic and DRAM in 1997, technologies and systems for computation in memory have developed quickly. The focus of this workshop was to bring together researchers from academia and industry to discuss recent progress and future goals.

The program committee selected 8 papers and 6 poster session abstracts from 29 submissions for inclusion in the workshop. Four to five members of the program committee reviewed each submission and their reviews were used to numerically rank them and guide the selection process. We believe that the resulting program is of the highest quality and interest possible. The selected papers cover a wide range of research topics such as circuit technology, processor and memory system architecture, compilers, operating systems, and applications. They also present a mix of mature projects, work in progress, and new research ideas.

The workshop also included two invited talks. Dr. Subramanian Iyer (IBM Microelectronics) provided an overview of embedded memory technology and its potential. Dr. Mark Snir (IBM Research) presented the Blue Gene, an aggressive supercomputer system based on intelligent memory technology.

Several people contributed to making this workshop happen. We would like to thank the members of the program committee for the considerable time they spent during the review and selection process. David Patterson (UC Berkeley) and Mark Horowitz (Stanford), the steering committee members, provided valuable advice on the scope and the organization of the workshop. We would also like to thank Larry Rudolph (MIT), James Hoe (CMU), and the rest of the ASPLOS-IX organizing committee for their help with local arrangements, registration, financing, and the proceedings. Finally, we would like to thank all the authors that submitted their papers to this workshop.

May 2001

Fred Chong, Christoforos Kozyrakis, and Mark Oskin

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Intelligent Memory Systems

Second International Workshop, IMS 2000, Cambridge,

MA, USA, November 12, 2000. Revised Papers

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2001, VIII, 200 p., Softcover

ISBN: 978-3-540-42328-7