Message from the Program Co-Chairs

Welcome to Montreal and the fourth MPPOI conference. Indeed, it has been our pleasure serving as program chairs for this important cross-disciplinary meeting which brings together top researchers in the fields of parallel processing and optical interconnects. To reflect the current state of the art in this research area we have encouraged authors to submit manuscripts demonstrating original unpublished research in the following topical areas.

- Optical Interconnections and Reconfigurable Architectures.
- Interconnection Networks.
- Embedding and Mapping of Applications and Algorithms.
- Packaging and Layout of Optical Interconnections.
- Electro-Optical and Opto-Electronic Components.
- Relative Merits of Optical Technologies (free-space, fibers, wave guides).
- Passive Optical Elements.
- Data Distribution and Partitioning.
- Characterizing Parallel Applications-Cost/Performance Studies.

The review process required submitted papers were reviewed by at least three different reviewers with the final decisions being made by the program chairs based on the recommendations given by the program committee members. The result of this review process is a program consisting of two tutorial speakers, ten invited talks, and twenty regular papers.

To encourage cross-disciplinary education we have included two tutorial sessions, one at the beginning of each day, covering the key issues and latest advancements in "high-performance opto electronic physical layers in systems" by Tony Levi (USC) and "switching techniques, adaptive routing and deadlock handling in interconnection networks" by Jose Duato (U. Valencia). We have also included two panel sessions to provide an opportunity for open discussion. The first panel discussion, organized by Frank A.P. Tooley (McGill) and Julian Bristow (Honeywell), focuses on "The Evaluation of Optical Interconnects Capabilities, Limitations, and Markets." The second panel discussion, organized by D. Scott Wills (GaTech) and Julian Bristow (Honeywell), focuses on "Interconnect Architectural Issues." We also have included a few more invited talks this year so that this conference can be a bit more focused on the themes presented in the tutorial sessions. Each session follows a theme set by the invited talk(s). Regular papers are grouped together within sessions as they related to these themes.

We thank the hard work and dedication of the program committee who are listed in these proceedings. We also thank D. Scott Wills, Frank Tooley, and Julian Bristow for organizing the two panel sessions. We acknowledge the help of Eugen Schenfeld (NEC Research Institute) in keeping things running smoothly, and we are grateful to Sue Bredhoff (NEC Research Institute) for facilitating administrative duties. Finally special thanks go to Joe Goodman (Stanford), the general chair, for guiding us to another successful conference.

Enjoy the conference!

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