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Recent Advances in Parallel Virtual Machine and Message Passing Interface

8th European PVM/MPI Users' Group Meeting
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Preface

Parallel Virtual Machine (PVM) and Message Passing Interface (MPI) are the most frequently used tools for programming according to the message passing paradigm, which is considered one of the best ways to develop parallel applications.

This volume comprises 50 revised contributions presented at the Eighth European PVM/MPI Users' Group Meeting, which was held on Santorini (Thera), Greece, 23–26 September 2001. The conference was organized by the Department of Informatics and Telecommunications, University of Athens, Greece.

This conference has been previously held in Balatofüred, Hungary (2000), Barcelona, Spain (1999), Liverpool, UK (1998), and Krakow, Poland (1997). The first three conferences were devoted to PVM and were held at the TU Munich, Germany (1996), the ENS Lyon, France (1995), and the University of Rome (1994).

This conference has become a forum for users and developers of PVM, MPI, and other message passing environments. Interaction between these groups has proved to be very useful for developing new ideas in parallel computing and for applying some of those already existent to new practical fields. The main topics of the meeting were evaluation and performance of PVM and MPI, extensions and improvements to PVM and MPI, algorithms using the message passing paradigm, and applications in science and engineering based on message passing. The conference included one tutorial on MPI and 9 invited talks on advances in MPI, cluster computing, network computing, Grid computing, and parallel programming and programming systems. These proceedings contain papers on the 46 oral presentations together with 4 poster presentations.

Invited speakers of Euro PVM/MPI were Frederica Darema, Al Geist, Bill Gropp, Domenico Laforenza, Phil Papadopoulos, Alexander Reinefeld, Thomas Sterling, and Vaidy Sunderam.

We would like to express our gratitude for the kind support of Compaq, HP-Germany, IBM, Microsoft, MPI Software Technology, M-Data, Silicon Computers Ltd, SUN Microsystems, TurboLinux, the Ministry of Education and Religious Affairs of Greece, and the University of Athens. Also, we would like to thank the members of the Program Committee and the other reviewers for their work in refereeing the submitted papers and ensuring the high quality of Euro PVM/MPI.

September 2001

Yiannis Cotronis
Jack Dongarra

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