Preface

The term "grid computing" is based on an analogy with the electrical power grid: computing capabilities should be ubiquitous and easy to use. While the development of what we now call grid computing is, in many ways, part of a natural progression of work done in the last decade, what's special about it is that all of its enabling technologies are converging at once: (1) a widely deployed, network infrastructure will connect virtually every device in the world, (2) an interface technology is widely understood and embraced by virtually every segment of science, technology, commerce, and society, and (3) there is a wide-spread, and growing, understanding of the properties, capabilities, and services that are necessary and *possible* to utilize this infrastructure. Information services and resource brokers will allow the dynamic sharing of resources for applications large and small and enable virtual organizations. These properties, capabilities, and services will be used in different contexts to enable different styles of computing such as Internet computing and Peer-to-Peer computing. To facilitate the adoption of standard practices, the Global Grid Forum (www.gridforum.org) was formed to identify common requirements and push for eventual standardization.

The phenomenal growth of grid computing and related topics has created the need for this workshop as a venue to present the latest research. This year's workshop builds on the success of last year's. Grid 2000, chaired by Rajkumar Buyya and Mark Baker, was held in conjunction with HiPC 2000, in Bangalore, India, and attracted participants from 15 countries. This year's workshop was held in conjunction with Supercomputing 2001, the world's premier meeting for high-performance computing. We sincerely thank Sally Haerer, David Culler, and Ian Foster for making this happen.

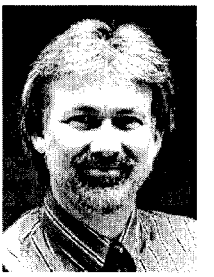
This year's Program Committee represented 12 countries on 4 continents and authors submitted papers from 7 countries on 3 continents. This certainly attests to the wide-spread, international importance of grid computing. We heartily thank all of the authors and the members of the Program Committee. It is the contribution of their valuable time and effort that has made this workshop a success. A very special thanks is extended to Dennis Gannon for his stimulating keynote address. Dennis has a long history of identifying the important issues and clearly elucidating them.

We thank our sponsors, the ACM, the IEEE, the IEEE Computer Society, the IEEE Task Force on Cluster Computing, and also Supercomputing 2001 for making the workshop and these proceedings possible. We are very grateful to Prof. Cauligi Raghavendra and Prof. Viktor Prasanna for allowing Grid 2001 to host its web site at the University of Southern California. Using WIMPE from Dartmouth College for managing the workshop through the web site from wherever I was proved to be invaluable. (Just make sure no other project fills up the disk partition with `/tmp`. ;-) We also wish to thank Jan van Leeuwen of Utrecht University (LNCS Series Editor) and Alfred Hofmann of Springer-Verlag

(Executive Editor) for publishing the proceedings. A special thanks goes to Anna Kramer of Springer-Verlag (Computer Science Editorial Assistant). Her prompt help made prefecting these proceedings as easy as `\addtocounter{one}{2+3}`.

Finally we wish to thank all who attended Grid 2001 in Denver. We now invite you to study these proceedings and their contribution to the further development of grid computing.

August 2001



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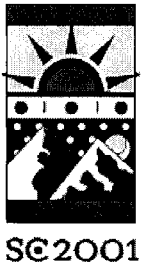

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