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# Grid Computing

Second European AcrossGrids Conference, AxGrids 2004  
Nicosia, Cyprus, January 28-30, 2004  
Revised Papers

Volume Editor

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## General Chairs' Message

As conference co-chairs, we have great pleasure in writing this short foreword to the proceedings of the 2nd European AcrossGrids Conference (AxGrids 2004). The conference clearly demonstrated the need in Europe for an annual event that brings together the grid research community to share experiences and learn about new developments. This year, in addition to the large number of attendees from across the 25 member states of the European Union, we were especially pleased to welcome fellow researchers from the Americas and the Asia – Pacific region. Only by talking and working together will we realize our vision of building truly global grids.

In addition to the main AxGrids 2004 conference, and thanks to the large number of researchers from European Commission-funded projects who were present, we were able to run a series of GRIDSTART Technical Working Group meetings and we are indebted to the conference organizers for helping with the logistics of this parallel activity.

In particular we would like to express our gratitude to Marios Dikaiakos and his team for working tirelessly over many months to make the conference the smooth-running success that it was. Of course, no conference is complete without speakers and an audience and we would like to thank everyone for their interest and engagement in the many sessions over the three days of the event.

AxGrids 2004 once again demonstrated the need in Europe for an event to bring together the research community. As we move forward into Framework 6 we look forward to its continuation and expansion to represent all of the grid research community in Europe.

June 2004

Mark Parsons  
Michal Turala

## Editor's Preface

The 2nd European AcrossGrids Conference (AxGrids 2004) aimed to examine the state of the art in research and technology developments in Grid Computing, and provide a forum for the presentation and exchange of views on the latest grid-related research results and future work. The conference was organized by CrossGrid, a European Union-funded project on Grid research, GRIDSTART, the EU-sponsored initiative for consolidating technical advances in grids in Europe, and the University of Cyprus. It continued on from the successful 1st European Across Grids Conference, held in Santiago de Compostela, Spain, in February 2003. AxGrids 2004 was run in conjunction with the 2nd IST Concertation Meeting on Grid Research, which brought together representatives from all EU-funded projects on Grid research for an exchange of experiences and ideas regarding recent developments in European grid research.

The conference was hosted in Nicosia, the capital of Cyprus, and attracted authors and attendees from all over Europe, the USA, and East Asia. The Program Committee of the conference consisted of 37 people from both academia and industry, and there were 13 external reviewers. Overall, AxGrids 2004 attracted 57 paper submissions (42 full papers and 15 short posters). Papers underwent a thorough review by several Program Committee members and external reviewers. After the review, the Program Chair decided to accept 26 papers (out of 42) for regular presentations, 8 papers for short presentations, and 13 papers for poster presentations. Accepted papers underwent a second review for inclusion this postproceedings volume, published as part of Springer's Lecture Notes in Computer Science series. Eventually, we decided to include 27 long and 3 short papers, which cover a range of important topics of grid research, from computational and data grids to the Semantic Grid and grid applications.

Here, we would like to thank the Program Committee members, the external reviewers, and the conference session chairs for their excellent work, which contributed to the high-quality technical program of the conference. We would also like to thank the University of Cyprus, IBM, GRIDSTART, and the Cyprus Telecommunications Authority (CYTA) for making possible the organization of this event through their generous sponsorship. Special thanks go to Maria Poveda for handling organizational issues, to Dr. Pedro Trancoso for setting up and running the Web management system at the Computer Science Department at the University of Cyprus, and to Kyriacos Neocleous for helping with the preparation of the proceedings.

I hope that you find this volume interesting and useful.

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# Table of Contents

EU Funded Grid Development in Europe .....	1
<i>P. Graham, M. Heikkurinen, J. Nabrzyski, A. Oleksiak, M. Parsons, H. Stockinger, K. Stockinger, M. Stroiński, and J. Węglarz</i>	
Pegasus: Mapping Scientific Workflows onto the Grid .....	11
<i>E. Deelman, J. Blythe, Y. Gil, C. Kesselman, G. Mehta, S. Patil, M.-H. Su, K. Vahi, and M. Livny</i>	
A Low-Cost Rescheduling Policy for Dependent Tasks on Grid Computing Systems .....	21
<i>H. Zhao and R. Sakellariou</i>	
An Advanced Architecture for a Commercial Grid Infrastructure .....	32
<i>A. Litke, A. Panagakis, A. Doulamis, N. Doulamis, T. Varvarigou, and E. Varvarigos</i>	
Managing MPI Applications in Grid Environments .....	42
<i>E. Heymann, M.A. Senar, E. Fernández, A. Fernández, and J. Salt</i>	
Flood Forecasting in CrossGrid Project .....	51
<i>L. Hluchy, V.D. Tran, O. Habala, B. Simo, E. Gatjal, J. Astalos, and M. Dobrucky</i>	
MPICH-G2 Implementation of an Interactive Artificial Neural Network Training .....	61
<i>D. Rodríguez, J. Gomes, J. Marco, R. Marco, and C. Martínez-Rivero</i>	
OpenMolGRID, a GRID Based System for Solving Large-Scale Drug Design Problems .....	69
<i>F. Darvas, Á. Papp, I. Bágyi, G. Ambrus, and L. Üрге</i>	
Integration of Blood Flow Visualization on the Grid: The FlowFish/GVK Approach .....	77
<i>A. Tirado-Ramos, H. Ragas, D. Shamonin, H. Rosmanith, and D. Kranzmueller</i>	
A Migration Framework for Executing Parallel Programs in the Grid .....	80
<i>J. Kovács and P. Kacsuk</i>	
Implementations of a Service-Oriented Architecture on Top of Jini, JXTA and OGSi .....	90
<i>N. Furmento, J. Hau, W. Lee, S. Newhouse, and J. Darlington</i>	

Dependable Global Computing with JaWS++ ..... 100  
*G. Kakarontzas and S. Lalis*

Connecting Condor Pools into Computational Grids by Jini ..... 110  
*G. Sipos and P. Kacsuk*

Overview of an Architecture Enabling Grid  
 Based Application Service Provision ..... 113  
*S. Wesner, B. Serhan, T. Dimitrakos, D. Mac Randal, P. Ritrovato,  
 and G. Laria*

A Grid-Enabled Adaptive Problem Solving Environment ..... 119  
*Y. Kim, I. Ra, S. Hariri, and Y. Kim*

Workflow Support for Complex Grid Applications:  
 Integrated and Portal Solutions ..... 129  
*R. Lovas, G. Dózsa, P. Kacsuk, N. Podhorszki, and D. Drótos*

Debugging MPI Grid Applications Using Net-dbx ..... 139  
*P. Neophytou, N. Neophytou, and P. Evripidou*

Towards an UML Based Graphical Representation  
 of Grid Workflow Applications ..... 149  
*S. Pllana, T. Fahringer, J. Testori, S. Benkner, and I. Brandic*

Support for User-Defined Metrics  
 in the Online Performance Analysis Tool G-PM ..... 159  
*R. Wismüller, M. Bubak, W. Funika, T. Arodź, and M. Kurdziel*

Software Engineering in the EU CrossGrid Project ..... 169  
*M. Bubak, M. Malawski, G. Młynarczyk, P. Nowakowski, R. Pajak,  
 K. Rycerz, and M. Turala*

Monitoring Message-Passing Parallel Applications  
 in the Grid with GRM and Mercury Monitor ..... 179  
*N. Podhorszki, Z. Balaton, and G. Gombás*

Lhcmaster – A System for Storage and Analysis of Data Coming  
 from the ATLAS Simulations ..... 182  
*M. Malawski, M. Wieczorek, M. Bubak, and E. Richter-Wąs*

Using Global Snapshots to Access Data Streams on the Grid ..... 191  
*B. Plale*

SCALEA-G: A Unified Monitoring and Performance Analysis System  
 for the Grid ..... 202  
*H.-L. Truong and T. Fahringer*

Application Monitoring in CrossGrid and Other Grid Projects ..... 212  
*B. Baliś, M. Bubak, M. Radecki, T. Szepieniec, and R. Wismüller*

Grid Infrastructure Monitoring as Reliable Information Service . . . . .	220
<i>P. Holub, M. Kuba, L. Matyska, and M. Ruda</i>	
Towards a Protocol for the Attachment of Semantic Descriptions to Grid Services . . . . .	230
<i>S. Miles, J. Papay, T. Payne, K. Decker, and L. Moreau</i>	
Semantic Matching of Grid Resource Descriptions . . . . .	240
<i>J. Brooke, D. Fellows, K. Garwood, and C. Goble</i>	
Enabling Knowledge Discovery Services on Grids . . . . .	250
<i>A. Congiusta, C. Mastroianni, A. Pugliese, D. Talia, and P. Trunfio</i>	
A Grid Service Framework for Metadata Management in Self-e-Learning Networks . . . . .	260
<i>G. Samaras, K. Karenos, and E. Christodoulou</i>	
<b>Author Index</b> . . . . .	271