Contents

Preface
A. Streit, M. Romberg, D. Mallmann **i**

A UNICORE-based Multi Site and Multi User Grid Environment for Demonstration, Education, and Testing Purposes
T. Kálmán, Th. Rings **1**

Building UNICORE Based Desktop Grid
J. Jurkiewicz, P. Bała **11**

DEISA Development Environment
G. Fiameni, M. S. Memon, S. H. Leong, X. Pegenaute, J. Jimenez, C. Gheller, R. Brunino, D. Mallmann **19**

Secure High-Throughput Computing Using UNICORE XML Spaces
R. Grunzke, B. Schuller **27**

Synergizing ETICS and UNICORE Software
A. Giesler, A. Streit, E. Ronchieri, M. Dibenedetto **37**

HiLA 2.0 – Evolutionary Improvements
B. Hagemeier, R. Menday **45**

MMF: A Flexible Framework for Metadata Management in UNICORE
W. Noor, B. Schuller **51**

Extended Execution Support for Scientific Applications in Grid Environments
B. Demuth, S. Holl, B. Schuller **61**

Running License Protected Applications with SmartLM and UNICORE
H. Rasheed, A. Rumpl, W. Ziegler, B. Hagemeier, D. Mallmann, H. Eickenbusch **69**

Resource Usage Accounting for UNICORE
P. Bała, K. Benedyczak, M. Lewandowski **75**

The Key Role of the UNICORE Technology in European Distributed Computing Infrastructures Supporting e-Science Applications in the Decades to Come
M. Riedel, M. S. Memon, A. S. Memon, S. Holl, D. Mallmann, N. Lamla, A. Streit, Th. Lippert **83**

Experiences with UNICORE 6 in Production
M. Rambadt, S. Bergmann, R. Breu, N. Lamla, M. Romberg **95**

UNICORE Runtime Administration
M. J. Daivandy, B. Schuller, B. Demuth **105**

Monitoring of the UNICORE middleware
P. Bała, K. Benedyczak, M. Strzelecki **117**