

# **2008 Third Workshop on Workflows in Support of Large- Scale Science**

**(WORKS 2008)**

**Austin, Texas, USA  
17 November 2008**



**IEEE Catalog Number: CFP0816F-PRT  
ISBN: 978-1-4244-2827-4**

# TABLE OF CONTENTS

|  |           |
|--|-----------|
| <b>Monitoring Infrastructure for Grid Scientific Workflows .....</b>                               | <b>1</b>  |
| <i>B. Balis, M. Bubak</i>  |           |
| <b>Characterization of Scientific Workflows .....</b>  | <b>11</b> |
| <i>S. Bharathi, A. Chervenak, E. Deelman, G. Mehta, M.H. Su, K. Vahi</i>                           |           |
| <b>Advanced QoS Methods for Grid Workflows Based on Meta-Negotiations and SLA-Mappings.....</b>    | <b>21</b> |
| <i>I. Brandic, D. Music, S. Dustdar, S. Venugopal, R. Buyya</i>                                    |           |
| <b>A Chemical Workflow Engine for Scientific Workflows with Dynamicity Support .....</b>           | <b>31</b> |
| <i>M. Caeiro, Z. Nemeth, T. Priol</i>  |           |
| <b>WS-PGRADE: Supporting Parameter Sweep Applications in Workflows .....</b>                       | <b>41</b> |
| <i>P. Kacsuk, K. Karoczkai, G. Hermann, G. Sipos, J. Kovacs</i>                                    |           |
| <b>Pegasus on the Virtual Grid: A Case Study of Workflow Planning over Captive Resources .....</b> | <b>51</b> |
| <i>Y.S. Kee, E. Byun, E. Deelman, K. Vahi, J.S. Kim</i>  |           |
| <b>A General and Scalable Solution for Heterogeneous Workflow Invocation and Nesting.....</b>      | <b>60</b> |
| <i>T. Kukla, T. Kiss, G. Terstyanszky, P. Kacsuk</i>   |           |
| <b>CASJobs: A Workflow Environment Designed for Large Scientific Catalogs.....</b>                 | <b>68</b> |
| <i>N. Li, A. Szalay</i>  |           |
| <b>A Semantic Workflow Mechanism to Realise Experimental Goals and Constraints.....</b>            | <b>76</b> |
| <i>E. Pignotti, P. Edwards, G. Polhill, N. Gotts, A. Preece</i>                                    |           |
| <b>Author Index</b>  |           |