

# Table of Contents

## Posters of the 2004 CoopIS (Cooperative Information Systems) International Conference

Dynamic Publish/Subscribe in Mobile Peer-to-Peer Systems . . . . .	1
<i>Eiko Yoneki, Jean Bacon</i>	
The Virtual Cooperative Project Taking into Account Work Semantic Meaning in Architectural Cooperative Design . . . . .	3
<i>Mohamed Bouattour, Gilles Halin, J. Claude Bignon</i>	
Collaborative Fuzzy Agents Using Constraint Logic Programming over Finite Domains . . . . .	5
<i>Susana Muñoz-Hernández, Jose Manuel Gómez-Pérez</i>	
Design a High-Level Language for Large Network Security Management . . . . .	7
<i>Jangha Kim, Byungwook Song, Kanghee Lee, Sangwook Kim, Daesik Choi, Jungtaek Seo</i>	
A Context-Based Awareness Mechanism for Mobile Cooperative Users . . .	9
<i>Manuele Kirsch-Pinheiro, Marlène Villanova-Oliver, Jérôme Gensel, Hervé Martin</i>	
Access Control-Based Distribution of Shared Documents . . . . .	12
<i>Sonia Mendoza, Alberto L. Morán, Dominique Decouchant, Ana María Martínez Enríquez, Jesus Favela</i>	
Service-Oriented Architecture of TeleCARE . . . . .	14
<i>Victor Guevara-Masis, Hamideh Afsarmanesh, Louis O. Hertzberger</i>	
Feedback Partitioning and Decomposition-Oriented Analysis of Cyclic Workflow Graphs . . . . .	17
<i>Yongsun Choi, J. Leon Zhao</i>	
Towards Implementing Consistency in OMG MOF-Based Repository Systems . . . . .	19
<i>Ilia Petrov, Stefan Jablonski, Marc Holze</i>	
Privacy-Preserving ID-Based Service Provision in Ubiquitous Computing Environments . . . . .	21
<i>Keon Myung Lee, Sang Ho Lee</i>	

Agents for Decentralised Process Design ..... 23  
*Iain Stalker, Nikolay Mehandjiev, Georg Weichhart, Kurt Fessl*

**Posters of the 2004 ODBASE (Ontologies,  
 Databases, and Applications of Semantics)  
 International Conference**

Knowledge Signatures for Information Integration ..... 26  
*Judi Thomson, Andrew Cowell, Patrick Paulson, Scott Butner,  
 Mark Whiting*

Efficient Processing of Huge Ontologies  
 in Logic and Relational Databases ..... 28  
*Timo Weithöner, Thorsten Liebig, Günther Specht*

Representing and Reasoning for Spatiotemporal Ontology Integration.... 30  
*Nacera Bennacer, Marie-Aude Aufaure, Nadine Cullot,  
 Anastasiya Sotnykova, Christelle Vangenot*

Effective and Efficient Melody-Matching Method  
 in a Large-Scale Music Database ..... 32  
*Sung-Phil Heo*

**Posters of the 2004 DOA (Distributed  
 Objects and Applications) International  
 Conference**

A CORBA-Based System for the Monitoring  
 of Petroleum Fields ..... 34  
*Diogo Salim, Thais Batista, Adelardo Medeiros*

Context-Aware Distributed Deployment  
 of Component-Based Applications ..... 36  
*Dhouha Ayed, Chantal Taconet, Nawel Sabri, Guy Bernard*

Towards an Incremental Process Model Based on AOP  
 for Distributed Component-Based Software Development ..... 38  
*Alexandre Alvaro, Daniel Lucrédio, Antonio Francisco do Prado,  
 Eduardo Santana de Almeida*

Supporting Nomadic Desktop Computing  
 Using an Internet Application Workbench ..... 40  
*Stefan Paal, Reiner Kammüller, Bernd Freisleben*

A Distributed Object Platform to Achieve Nomadic Interactions ..... 44  
*Domenico Cotroneo, Armando Migliaccio, Stefano Russo*

A Virtual-Machine-Based Middleware . . . . .	46
<i>Alcides Calsavara, Agnaldo K. Noda, Juarez da Costa, Carlos Kolb, Leonardo Nunes</i>	
<b>Workshop on Grid Computing and Its Application to Data Analysis (GADA)</b>	
PC Co-chairs' Message . . . . .	48
<i>Editors: Pilar Herrero, María S. Pérez, Milena Radenkovic, Victor Robles</i>	
Simulation of Mars Impact Cratering on a Grid Enviroment . . . . .	50
<i>Eduardo Huedo, Alain Lepinette, Rubén S. Montero, Ignacio M. Llorente, Luis Vázquez</i>	
A Grid Environment for Simulation and Optimization and a First Implementation of a Biomedical Application . . . . .	59
<i>Silke Halstenberg, Karl-Uwe Stucky, Wolfgang Süß</i>	
Application of Grid Security to Personal Distributed Environments . . . . .	68
<i>Allan Tomlinson, Scarlet Schwiderski-Grosche</i>	
An Adaptive Cost Model for Distributed Query Optimization on the Grid . . . . .	79
<i>Yahya Slimani, Faiza Najjar, Najla Mami</i>	
GDIS: A Service-Based Architecture for Data Integration on Grids . . . . .	88
<i>Carmela Comito, Domenico Talia</i>	
Managing Long Running Queries in Grid Environment . . . . .	99
<i>Ruslan Fomkin, Tore Risch</i>	
Improving Distributed Data Mining Techniques by Means of a Grid Infrastructure . . . . .	111
<i>Alberto Sánchez, José M. Peña, María S. Pérez, Víctor Robles, Pilar Herrero</i>	
Improving Grid Services Security with Fine Grain Policies . . . . .	123
<i>Fabrizio Baiardi, Fabio Martinelli, Paolo Mori, Anna Vaccarelli</i>	
Resource Dissemination Policies on Grids . . . . .	135
<i>Marta Beltrán, Jose L. Bosque, Antonio Guzmán</i>	
A Grid Framework for Approximate Aggregate Query Answering on Summarized Sensor Network Readings . . . . .	144
<i>Alfredo Cuzzocrea, Filippo Furfaro, Giuseppe M. Mazzeo, Domenico Saccà</i>	
Large-Scale Resource Selection in Grids . . . . .	154
<i>Ali M. Roumani, David B. Skillicorn</i>	

A Proposal of a CIM-Based Policy Management Model for the OGSA Security Architecture . . . . .	165
<i>Félix J. García Clemente, Gregorio Martínez Pérez, Óscar Cánovas Reverte, Antonio F. Gómez Skarmeta</i>	
A Grid-Based Approach for Processing Group Activity Log Files . . . . .	175
<i>Fatos Xhafa, Santi Caballé, Thanasis Daradoumis, Nan Zhou</i>	
Design, Implementation, and Evaluation of a Resource Management Multiagent System for a Multimedia Processing Grid . . . . .	187
<i>Isaac Chao, Ramon Sangüesa, Oscar Ardaiz</i>	
Towards a Peer-to-Peer Event Broker Grid in a Hybrid Network Environment . . . . .	198
<i>Eiko Yoneki, Jean Bacon</i>	
Bioinformatics Data Access Service in the ProGenGrid System . . . . .	211
<i>Giovanni Aloisio, Massimo Cafaro, Sandro Fiore, Maria Mirto</i>	
MSF: A Workflow Service Infrastructure for Computational Grid Environments . . . . .	222
<i>Seogchan Hwang, Jaeyoung Choi</i>	
Using PROTEUS for Modeling Data Mining Analysis of Proteomics Experiments on the Grid . . . . .	232
<i>Mario Cannataro, Pietro Hiram Guzzi, Tommaso Mazza, Pierangelo Veltri</i>	
<b>Workshop on Java Technologies for Real-Time and Embedded Systems (JTRES)</b>	
PC Co-chairs' Message . . . . .	244
<i>Editors: Angelo Corsaro, Corrado Santoro</i>	
Real-Time Teaching with Java: <i>JPR</i> <sup>3</sup> . . . . .	246
<i>Diego Alonso, Juan A. Pastor, Bárbara Álvarez</i>	
Toward a Component-Based Embedded Java-Oriented Operating System . . . . .	256
<i>Frédéric Dang Tran, Jean-Philippe Fassino, Olivier Lobry, Jacques Poulou, Nicolas Rivierre</i>	
Studying the Behaviour of the Single Parent Rule in Real-Time Java . . . . .	268
<i>M. Teresa Higuera-Toledano</i>	
Supporting Mixed Criticality Applications in a Ravenscar-Java Environment . . . . .	278
<i>Hao Cai, Andy Wellings</i>	

Optimizing Real-Time Embedded Systems Development Using a RTSJ-Based API . . . . .	292
<i>Marco A. Wehrmeister, Leandro B. Becker, Carlos Eduardo Pereira</i>	
Lightweight Firm Real-Time Extensions for Low Memory Profile Java Systems . . . . .	303
<i>Helge Böhme, Ulrich Golze</i>	
Towards an Understanding of the Expressive Power of the RTSJ Scoped Memory Model . . . . .	315
<i>Andrew Borg, Andy Wellings</i>	
Memory Management Based on Method Invocation in RTSJ . . . . .	333
<i>Jagun Kwon, Andy Wellings</i>	
Encapsulation of IEC 61499 Function Blocks Using Real-Time Java According to the RTSJ . . . . .	346
<i>Marcus Tangermann, Christian Schwab, Arndt Lüder, Luca Ferrarini, Carlo Veber</i>	
No Heap Remote Objects: Leaving Out Garbage Collection at the Server Side . . . . .	359
<i>Pablo Basanta-Val, Marisol Garcia-Valls, Iria Estévez-Ayres</i>	
A Time Predictable Instruction Cache for a Java Processor . . . . .	371
<i>Martin Schoeberl</i>	
Indoor Positioning for Location-Aware Applications on Java-Based Mobile Devices . . . . .	383
<i>Cristiano di Flora, Massimo Ficco, Stefano Russo</i>	
Design Patterns for RTSJ Application Development . . . . .	394
<i>Angelo Corsaro, Corrado Santoro</i>	
Separating Soft Real-Time from Functionality Concerns in Complex Object-Oriented Applications . . . . .	406
<i>Antonella Di Stefano, Marco Fargetta, Giuseppe Pappalardo, Emiliano Tramontana</i>	
<b>Workshop on Modeling Inter-Organizational Systems (MIOS)</b>	
PC Co-chairs' Message . . . . .	418
<i>Editors: Antonia Albani, Klaus Turowski</i>	
The e-Lollapalooza GlobalWorkflow Modeler: A Registry-Based Workflow Modeling Methodology and System . . . . .	419
<i>Kwanghoon Kim, Hyukjae Ryoo, Jaekang Won</i>	

Concepts of Flexibility for Efficient Integration of B2B Processes . . . . .	431
<i>Jelena Zdravkovic</i>	
Using Patterns in the Design of Inter-organizational Systems – An Experience Report . . . . .	444
<i>John Novatnack, Jana Koehler</i>	
Managing Ad Hoc Virtual Enterprises in Open SME Networks: The SCOOP Solution . . . . .	456
<i>Michael Ryba, Gerhard Wickler</i>	
Engineering of Dependable Complex Business Processes Using UML and Coordinated Atomic Actions . . . . .	468
<i>Nicolas Guelfi, Guillaume Le Cousin, Benoît Ries</i>	
Cross-Enterprise Business Process Management Architecture – Methods and Tools for Flexible Collaboration . . . . .	483
<i>Sven Zang, Anja Hofer, Otmar Adam</i>	
From the Analysis of Cooperation Within Organizational Environments to the Design of Cooperative Information Systems: An Agent-Based Approach . . . . .	495
<i>Djamel Benmerzoug, Zizette Boufaïda, Mahmoud Boufaïda</i>	
Transforming UMM Business Collaboration Models to BPEL . . . . .	507
<i>Birgit Hofreiter, Christian Huemer</i>	
Using BPEL Process Descriptions for Building Up Strategic Models of Inter-organizational Networks . . . . .	520
<i>Dominik Schmitz, Gerhard Lakemeyer, Günter Gans, Matthias Jarke</i>	
A Meta Ontology for Organizations . . . . .	533
<i>Jan L.G. Dietz, Nathalie Habing</i>	
A Model-Driven Approach to Designing Cross-Enterprise Business Processes . . . . .	544
<i>Bernhard Bauer, Jörg P. Müller, Stephan Roser</i>	
A Component-Based Architecture for Protocol Vector Conversion in Inter-organizational Systems . . . . .	556
<i>Bettina Bazijanec, Christian Winnewisser, Antonia Albani, Klaus Turowski</i>	
<b>Workshop on Regulatory Ontologies (WORM)</b>	
PC Co-chairs' Message . . . . .	568
<i>Editors: Mustafa Jarrar, Aldo Gangemi</i>	

Ontology-Based E-government Thematic Services Based on Topic Maps . . . . .	569
<i>Ioannis Tsampoulatidis, Dimitrios Tzovaras, Michael G. Strintzis</i>	
Workflow Description of Digital Rights Management Systems . . . . .	581
<i>Silvia Llorente, Eva Rodríguez, Jaime Delgado</i>	
Automatic Classification and Analysis of Provisions in Italian Legal Texts: A Case Study . . . . .	593
<i>Roberto Bartolini, Alessandro Lenci, Simonetta Montemagni, Vito Pirrelli, Claudia Soria</i>	
Engineering an Ontology of Financial Securities Fraud . . . . .	605
<i>Gang Zhao, John Kingston, Koen Kerremans, Frederick Coppens, Ruben Verlinden, Rita Temmerman, Robert Meersman</i>	
Extracting Legal Propositions from Appellate Decisions with Text Discourse Analysis Methods . . . . .	621
<i>Woojin Paik, Jee Yeon Lee</i>	
Cases and Dialectical Arguments – An Approach to Case-Based Reasoning . . . . .	634
<i>Bram Roth, Bart Verheij</i>	
Modeling the Tax Code . . . . .	652
<i>Eric Melz, Andre Valente</i>	
Modelling Changes in Ontologies . . . . .	662
<i>Johann Eder, Christian Koncilia</i>	
An Ontology-Based Model for Representing “Bundle-of-Rights” . . . . .	674
<i>Maria-Teresa Sagri, Daniela Tiscornia, Aldo Gangemi</i>	
<b>Workshop on Ontologies, Semantics, and E-learning (WOSE)</b>	
PC Co-chairs’ Message . . . . .	689
<i>Editors: Erik Duval, Peter Spyns</i>	
Improving LOM-Based Interoperability of Learning Repositories . . . . .	690
<i>Germán M. Rivera, Bernd Simon, Juan Quemada, Joaquín Salvachúa</i>	
Domain Ontology as a Resource Providing Adaptivity in eLearning . . . . .	700
<i>Galia Angelova, Ognian Kalaydjiev, Alben Strupchanska</i>	
Towards a Global Component Architecture for Learning Objects: An Ontology Based Approach . . . . .	713
<i>Katrien Verbert, Joris Klerkx, Michael Meire, Jehad Najjar, Erik Duval</i>	

Human-Generated Learning Object Metadata .....	723
<i>Andrew Brasher, Patrick McAndrew</i>	
Extracting Sub-ontology from Multiple Ontologies .....	731
<i>Dazhou Kang, Baowen Xu, Jianjiang Lu, Peng Wang, Yanhui Li</i>	
MAZETTE: Multi Agent MUNETTE for Sharing and Reusing Ontologies .....	741
<i>Jesus Arana, Salima Hassas, Yannick Prié</i>	
Literate Ontology Development .....	753
<i>Achim Mahnke, Bernd Krieg-Brückner</i>	
An E-learning Concept Mindmap and the Management of the Underlying Learning Objects .....	758
<i>Jeanne Schreurs, Gerd Balette, Rachel Moreau</i>	
Theory and Semi-automatic Generation of Bridge Ontology in Multi-ontologies Environment .....	763
<i>Peng Wang, Baowen Xu, Jianjiang Lu, Yanhui Li, Dazhou Kang</i>	
Integrating Ontologies into Learning Management Systems – A Case of Czech .....	768
<i>Pavel Smrž</i>	
Towards an Ontological Support for eLearning Courses .....	773
<i>Antonio De Nicola, Michele Missikoff, Frederica Schiappelli</i>	
<b>PhD Symposium (PhDS)</b>	
PC Co-chairs' Message .....	778
<i>Editors: Peter Spyns, Antonia Albani, Alexios Palinginis</i>	
Management of Dynamic and Imperfect User Context Information .....	779
<i>Andreas Schmidt</i>	
Bridging Information Gaps in an OPM-Based System Development Lifecycle .....	787
<i>Avi Soffer</i>	
Revising and Managing Multiple Ontology Versions in a Possible Worlds Setting .....	798
<i>Pieter De Leenheer</i>	
On the Verification of Web Services Compatibility: A Petri Net Approach .....	810
<i>Manu De Backer</i>	

Usability of Visual Information Retrieval Metaphors for Object-Oriented Databases .....	822
<i>Mariusz Trzaska, Kazimierz Subieta</i>	
Automated Compatibility Tests for Business Related Aspects of Software Components .....	834
<i>Johannes Maria Zaha</i>	
Formal Infrastructure for Modelling Intelligent Agents with Agent UML and Petri Nets .....	842
<i>Marina Bagic</i>	
Model-Driven Design of Distributed Applications .....	854
<i>João Paulo A. Almeida</i>	
<b>INTEROP NoE Dissemination Workshop (INTEROP)</b>	
INTEROP NoE: Interoperability Research for Networked Enterprises Applications and Software .....	866
<i>Hervé Panetto, Monica Scannapieco, Martin Zelm</i>	
<b>Author Index</b> .....	883