

Table of Contents

CMS 2012 – Third International Workshop on Conceptual Modelling of Services

Preface to CMS 2012	1
<i>Klaus-Dieter Schewe and Qing Wang</i>	

Session I: Ontologies and Web Applications

A Rule Based Approach for Mapping Sensor Data to Ontological Models in AAL Environments	3
<i>Mario Buchmayr, Werner Kurschl, and Josef Küng</i>	

Session II: Services and Cloud Computing

Parameters for Service Level Agreements Generation in Cloud Computing: A Client-Centric Vision	13
<i>Mariam Rady</i>	
Resource, Process, and Use – Views on Service Modeling	23
<i>Birger Andersson, Maria Bergholtz, and Paul Johannesson</i>	
A Client-Centric ASM-Based Approach to Identity Management in Cloud Computing	34
<i>Mircea Boris Vleju</i>	

ECDM-NoCoDa 2012 – First International Workshop on Evolution and Change in Data Management and on Non Conventional Data Access

Preface to ECDM-NoCoDa 2012	45
<i>Fabio Grandi, Giorgio Orsi, Letizia Tanca, and Riccardo Torlone</i>	

Session I: Evolution and Change in Data Management

The Telic/Atelic Distinction in Temporal Databases (Keynote Paper) ...	47
<i>Paolo Terenziani</i>	
Static Analysis of XML Document Adaptations	57
<i>Alessandro Solimando, Giorgio Delzanno, and Giovanna Guerrini</i>	
Supporting Database Provenance under Schema Evolution	67
<i>Shi Gao and Carlo Zaniolo</i>	

Session II: Non Conventional Data Access

An in-Browser Microblog Ranking Engine	78
<i>Stéphane Frénot and Stéphane Grumbach</i>	
Contextual Recommendations for Groups	89
<i>Kostas Stefanidis, Nafiseh Shabib, Kjetil Nørnvåg, and John Krogstie</i>	

MoDIC 2012 – First International Workshop on Modeling for Data-Intensive Computing

Preface to MoDIC 2012	99
<i>David Gil, Juan Trujillo, and Il-Yeol Song</i>	

Session I: Big Data: General Issues and Modeling Approaches

A Scientific Hypothesis Conceptual Model	101
<i>Fabio Porto, Ana Maria de C. Moura, Bernardo Gonçalves, Ramon Costa, and Stefano Spaccapietra</i>	
An Integrated Multidimensional Modeling Approach to Access Big Data in Business Intelligence Platforms	111
<i>Alejandro Maté, Hector Llorens, and Elisa de Gregorio</i>	

Session II: Ontologies and Conceptual Models

A Comprehensive Model for Provenance (Invited Paper)	121
<i>Salmin Sultana and Elisa Bertino</i>	
Towards Discovering Ontological Models from Big RDF Data	131
<i>Carlos R. Rivero, Inma Hernández, David Ruiz, and Rafael Corchuelo</i>	
Towards Scalable Information Modeling of Requirements Architectures	141
<i>Krzysztof Wnuk, Markus Borg, and Saïd Assar</i>	

MORE-BI 2012 – Second International Workshop on Modeling and Reasoning for Business Intelligence

Preface to MORE-BI 2012	151
<i>Ivan J. Jureta, Stéphane Faulkner, and Esteban Zimányi</i>	
OLAP-Like Analysis of Time Point-Based Sequential Data	153
<i>Bartosz Bębel, Mikołaj Morzy, Tadeusz Morzy, Zbyszko Królikowski, and Robert Wrembel</i>	

Multi-dimensional Navigation Modeling Using BI Analysis Graphs	162
<i>Thomas Neuböck, Bernd Neumayr, Thomas Rossgatterer, Stefan Anderlik, and Michael Schrefl</i>	
Ontology Alignment for Semantic Data Integration through Foundational Ontologies	172
<i>Natalia Fonseca Padilha, Fernanda Baião, and Kate Revoredo</i>	
RIGiM 2012 – Fourth International Workshop on Requirements, Intentions and Goals in Conceptual Modeling	
Preface to RIGiM 2012	183
<i>Colette Rolland, Jennifer Horkoff, Eric Yu, Camille Salinesi, and Jaelson Castro</i>	
Where Did the Requirements Come from? A Retrospective Case Study	185
<i>Itzel Morales-Ramirez, Matthieu Vergne, Mirko Morandini, Luca Sabatucci, Anna Perini, and Angelo Susi</i>	
Requirements, Intentions, Goals and Applicable Norms	195
<i>Alberto Siena, Silvia Ingolfo, Angelo Susi, Ivan J. Jureta, Anna Perini, and John Mylopoulos</i>	
Towards Advanced Goal Model Analysis with jUCMNav	201
<i>Daniel Amyot, Azalia Shamsaei, Jason Kealey, Etienne Tremblay, Andrew Miga, Gunter Mussbacher, Mohammad Alhaj, Rasha Tawhid, Edna Braun, and Nick Cartwright</i>	
SeCoGIS 2012 – Sixth International Workshop on Semantic and Conceptual Issues in GIS	
Preface to SeCoGIS 2012	211
<i>Eliseo Clementini and Esteban Zimanyi</i>	
Session I: New Frontiers of Spatio-temporal Dimensions	
Key Ingredients for Your Next Semantics Elevator Talk (Keynote Paper)	213
<i>Krzysztof Janowicz and Pascal Hitzler</i>	
Towards a Spatio-temporal Form of Entropy	221
<i>Christophe Claramunt</i>	

Session II: Semantic Issues

The Similarity Jury: Combining Expert Judgements on Geographic Concepts 231
Andrea Ballatore, David C. Wilson, and Michela Bertolotto

Enriching SQWRL Queries in Support of Geospatial Data Retrieval from Multiple and Complementary Sources 241
Mohamed Bakillah, Mir Abolfazl Mostafavi, and Steve H.L. Liang

From Polygons and Timestamps to Dynamic Geographic Features: Grounding a Spatio-temporal Geo-ontology 251
Claudio E.C. Campelo, Brandon Bennett, and Vania Dimitrova

Session III: Conceptual Issues

User View of Spatial Networks in Spatial Database Systems 261
Virupaksha Kanjilal and Markus Schneider

A Collaborative User-Centered Approach to Fine-Tune Geospatial Database Design 272
Joel Grira, Yvan Bédard, and Tarek Sboui

Using the DBV Model to Maintain Versions of Multi-scale Geospatial Data 284
João Sávio C. Longo, Luís Theodoro O. Camargo, Claudia Bauzer Medeiros, and André Santanchè

Session IV: Spatio-temporal Issues

Multi-scale Windowing over Trajectory Streams 294
Kostas Patroumpas

A Geographic Standards Based Metamodel to Formalize Spatio-temporal Knowledge in Remote Sensing Applications 304
Christelle Pierkot

A Fuzzy Spatio-temporal-Based Approach for Activity Recognition 314
Jean-Marie Le Yaouanc and Jean-Philippe Poli

WISM 2012 – Ninth International Workshop on Web Information Systems Modeling

Preface to WISM 2012 325
Flavius Frasincar, Geert-Jan Houben, and Philippe Thiran

Session I: Web Information Systems Development and Analysis Models

Lightweight Semantics over Web Information Systems Content Employing Knowledge Tags (Keynote Paper)	327
<i>Mária Bielíková and Karol Rástočný</i>	
Investigating the Relation between Users' Cognitive Style and Web Navigation Behavior with K-means Clustering	337
<i>Marios Belk, Efi Papatheocharous, Panagiotis Germanakos, and George Samaras</i>	

Session II: Web Technologies and Applications

Web Navigation via Semantic Annotations	347
<i>Roberto De Virgilio and Lorenzo Dolfi</i>	
Using the Web to Monitor a Customized Unified Financial Portfolio . . .	358
<i>Camilo Restrepo-Arango, Arturo Henao-Chaparro, and Claudia Jiménez-Guarín</i>	
Financial Events Recognition in Web News for Algorithmic Trading . . .	368
<i>Frederik Hogenboom</i>	

ER 2012 — Demonstrations

Alf-Verifier: An Eclipse Plugin for Verifying Alf/UML Executable Models	378
<i>Elena Planas, David Sanchez-Mendoza, Jordi Cabot, and Cristina Gómez</i>	
A Web-Based Filtering Engine for Understanding Event Specifications in Large Conceptual Schemas	383
<i>Antonio Villegas, Antoni Olivé, and Maria-Ribera Sancho</i>	
An Eclipse Plugin for Improving the Quality of UML Conceptual Schemas	387
<i>David Aguilera, Cristina Gómez, and Antoni Olivé</i>	
Requirement-Driven Creation and Deployment of Multidimensional and ETL Designs	391
<i>Petar Jovanovic, Oscar Romero, Alkis Simitsis, and Alberto Abelló</i>	

STS-Tool: Using Commitments to Specify Socio-Technical Security
Requirements 396
 Elda Paja, Fabiano Dalpiaz, Mauro Poggianella,
 Pierluigi Roberti, and Paolo Giorgini

CAWE DW Documenter: A Model-Driven Tool for Customizable ETL
Documentation Generation 400
 Robert Krawatzek, Frieder Jacobi, and Marcus Hofmann

Author Index 405