# Table of Contents

Towards an Event-Driven Architecture:
An Infrastructure for Event Processing Position Paper .......................... 1

*Opher Etzion*

Enabling Semantic Web Inferencing with Oracle Technology:
Applications in Life Sciences .......................................................... 8

*Susie Stephens*

A Realistic Architecture for the Semantic Web ................................. 17

*Michael Kifer, Jos de Bruijn, Harold Boley, and Dieter Fensel*

Active Rules in the Semantic Web: Dealing with Language Heterogeneity .... 30

*Wolfgang May, José Júlio Alferes, and Ricardo Amador*

Towards an Abstract Syntax and Direct-Model Theoretic Semantics for RuleML . 45

*Adrian Giurca and Gerd Wagner*

A Semantic Web Framework for Interleaving Policy Reasoning and External Service Discovery ..................................................... 56

*Jinghai Rao and Norman Sadeh*

Reactive Rules-Based Dependency Resolution for Monitoring Dynamic Environments ......................................................... 71

*Dagan Gilat, Royi Ronen, Ron Rothblum, Guy Sharon, and Inna Skarbovsky*

Towards Discovery of Frequent Patterns in Description Logics with Rules .... 84

*Joanna Józefowska, Agnieszka Ławrynowicz, and Tomasz Łukaszewski*

Design and Implementation of an ECA Rule Markup Language ............... 98

*Marco Seiriô and Mikael Berndtsson*

Extending the SweetDeal Approach for e-Procurement Using SweetRules and RuleML ............................................................. 113

*Sumit Bhansali and Benjamin N. Grosof*

Using SWRL and OWL to Capture Domain Knowledge for a Situation Awareness Application Applied to a Supply Logistics Scenario ... 130

*Christopher J. Matheus, Kenneth Baclawski, Mieczyslaw M. Kokar, and Jerzy J. Letkowski*

A Semantic Web Based Architecture for e-Contracts in Defeasible Logic .... 145

*Guido Governatori and Duy Pham Hoang*
### Table of Contents

Merging and Aligning Ontologies in dl-Programs .......................... 160  
*Kewen Wang, Grigoris Antoniou, Rodney Topor, and Abdul Sattar*

A Visual Environment for Developing Defeasible Rule Bases  
for the Semantic Web .............................. 172  
*Nick Bassiliades, Efstratios Kontopoulos, and Grigoris Antoniou*

Flavours of XChange, a Rule-Based Reactive Language for the (Semantic) Web . . 187  
*James Bailey, François Bry, Michael Eckert, and Paula-Lavinia Pătrânjan*

Rule-Based Framework for Automated Negotiation: Initial Implementation . . . . 193  
*Costin Bădică, Adriana Bădiţă, Maria Ganzha, Alin Iordache,  
and Marcin Paprzycki*

Uncertainty and RuleML Rulebases: A Preliminary Report ................. 199  
*Giorgos Stoilos, Giorgos Stamou, Vassilis Tzouvaras, and Jeff Z. Pan*

Nested Rules in Defeasible Logic .................................... 204  
*Insu Song and Guido Governatori*

ContractLog: An Approach to Rule Based Monitoring  
and Execution of Service Level Agreements ............................ 209  
*Adrian Paschke, Martin Bichler, and Jens Dietrich*

The OO jDREW Reference Implementation of RuleML ...................... 218  
*Marcel Ball, Harold Boley, David Hirtle, Jing Mei, and Bruce Spencer*

**Author Index** .................................................... 225
Rules and Rule Markup Languages for the Semantic Web
First International Conference, RuleML 2005, Galway, Ireland, November 10-12, 2005, Proceedings
Adi, A.; Stoutenburg, S.; Tabet, S. (Eds.)
2005, X, 225 p., Softcover
ISBN: 978-3-540-29922-6