Preface

The 4th International Web Rule Symposium (RuleML 2010), co-located in Alexandria, Virginia, USA (near Washington, DC) with the 13th International Business Rules Forum Conference 2010, was organized to meet colleagues and to exchange ideas from all subareas of Web rule technology. The aims of RuleML 2010 were both to present new and interesting research results and to show successfully deployed rule-based applications. This annual symposium is the flagship event of the Rule Markup Language (RuleML) Initiative.

The RuleML Initiative (www.ruleml.org) is a non-profit umbrella organization of several technical groups organized by representatives from academia, industry and public sectors working on rule technologies and applications. Its aim is to promote the study, research and application of rules in heterogeneous distributed environments such as the Web. RuleML maintains effective links with other major international societies and acts as an intermediary between various “specialized” rule vendor, application, industrial and academic research groups, as well as standardization efforts including W3C, OMG and OASIS.

After a series of successful international RuleML workshops and conferences, the RuleML symposia, held since 2007, constitute a new kind of event where the Web rules and logic community joins the established, practically oriented business rules community (www.businessrulesforum.com). The symposium supports the idea that there is a successful path from high-quality research results to deployed applications. Hence, the RuleML Symposium is research-based and industry-focused: its main goal is to build a bridge between academia and industry in the field of Web rules, semantic technology, and business processes, and so to stimulate the cooperation and interoperability between business and research, by bringing together rule system providers, participants in rule standardization efforts, open source communities, practitioners and researchers.

The contributions in this volume include one abstract and one paper for the two invited keynote presentations, one extended abstract of an invited demo, one track paper (by Grigoris Antoniou and Antonis Bikakis, the track chairs, outlining a new research line for a topic not already presented in 2009) and a selection of 14 full papers and 7 short papers chosen from a pool of 42 submissions by authors from 22 countries. The accepted papers address a wide range of rule topics. In addition to some miscellaneous rule topics, most papers fall within the following track topics: Rules, Semantic Technology, and Cross-Industry Standards; Rule Transformation and Extraction; Rules and Uncertainty; Rules and Norms; Rules and Inferencing; Rule-Based Event Processing and Reaction Rules; and Rule-Based Distributed/Multi-Agent Systems.

The accepted papers were carefully selected after a rigorous peer-review process where each paper was evaluated by a panel of at least three members of the international Program Committee. We thank the reviewers for their effort
and very valuable contribution; without them it would not be possible to maintain and improve the high scientific standard the symposium has now achieved. We thank the authors for submitting good papers, responding to the reviewers’ comments, and abiding by our production schedule. We thank the keynote and invited demo speakers for their interesting presentations. And we thank the Business Rules Forum organizers for enabling this fruitful co-location of the 13th International Business Rules Forum Conference 2010 and RuleML 2010.

The real success of rule technology will be measured by the applications that use the technology rather than by the technology itself. To emphasize the practical use of rule technologies, RuleML 2010 continued the tradition of hosting the International Rule Challenge. The challenge offers participants the opportunity to demonstrate their commercial and open source tools, use cases, benchmarks, and applications. It was the ideal forum for those wanting to understand how rules technology can produce benefits, both technically and commercially.

The RuleML 2010 Symposium was financially supported by industrial companies and research institutes and was technically supported by several professional societies. We thank our sponsors, whose financial support helped us to organize this event, and whose technical support enabled us to attract many high-quality submissions.

August 2010

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