## PREFACE

The 4<sup>th</sup> RuleML Doctoral Consortium is part of the RuleML International Symposium on Rules since 2011. It attracts Ph.D. researchers in the area of Rules and Markup Languages from different backgrounds (e.g. theoretical, application, vertical domain-specific) and encourages a constructive and fruitful interdisciplinary approach. This year the Doctoral Consortium accepted two papers, one presenting an idea of BIS using IFC ontology and SWRL rules and the second one proposing a PhD thesis plan to investigate the options of integration of probabilistic reasoning in a business rules-based system.

The 8<sup>th</sup> International Web Rule Challenge is one of the highlights at RuleML2014 Conference, presenting innovative rule-oriented applications that are aimed at both the research and industrial side. Continuing the tradition of the Challenge as disseminator of the most advanced practical experiences with rule-based applications, we introduce this year the first *Award for the Best RuleML Rulebase* competition aiming to promote significant use cases that syntactically validates w.r.t. a Deliberation RuleML 1.01 schema for the most specific sublanguage defined by MYNG 1.01.

The Challenge papers include rule-based implementations/tools/applications, editing environments and IDEs for Web rules, demonstrations of engineering methods, implementations of rule standards, use cases, experience reports, best practice solutions, rule benchmarks and evaluations.

We warmly thank all authors, students, supervisors, referees, co-chairs, members of the program committee and the organizing team that made the RuleML2014 Symposium, International Web Rule Challenge, and Doctoral Consortium a great success.

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