

## **Preface**

RuleML+RR 2020 is the leading international joint conference in the field of rule-based reasoning, and focuses on theoretical advances, novel technologies, as well as innovative applications concerning knowledge representation, reasoning, and learning with rules. The conference is an annual event that builds bridges between academia and industry. These proceedings present the papers from the satellite events of RuleML+RR 2020, namely the 14<sup>th</sup> Rule Challenge, the Doctoral Consortium and the Industry Track.

The Rule Challenge is one of the highlights of the conference and seeks to provide competition among innovative rule-oriented applications, aimed at both the research and industrial side. Submissions typically present demos related to the RuleML+RR topics, supply benchmarks and comparison results for rule engines and rule-based machine learning techniques, illustrate rule- and model-driven engineering, report on industrial experiences, present real case studies and practical experiences. The Rule Challenge is a competition and a prize (500 euro) is awarded for the best Rule Challenge paper, which is decided by the audience at the conference. This year's programme had 6 accepted papers across two sessions of the RuleML+RR conference.

The Doctoral Consortium is an initiative of the RuleML+RR community to attract and promote student research in rules and reasoning. It offers students a close contact with leading experts on the field, as well as the opportunity to present and discuss their ideas in a dynamic and friendly setting. The topics range from theoretical aspects of rules and reasoning, such as knowledge elicitation within the knowledge graphs, ontology-enriched data management, data anonymisation, to description logics to machine learning. Students presented their work through brief oral presentations during a dedicated session of the RuleML+RR conference and had the chance to discuss their research in detail with experts in the field. This year's programme had 4 accepted papers from doctoral students.

The Industry Track has a focus on experiences from practitioners when applying rules to industries such as engineering, manufacturing, agriculture, energy, media, financials, telecommunications, healthcare, life sciences, government, smart cities, and cultural heritage. Participants have the opportunity to present their own results / solutions that use rule technologies in business settings and at the same time learn about new trends in rule technologies, and how they can be used to address business problems. This year's programme had 4 accepted papers from practitioners in the Industry Track.

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