

# Web Reasoning and Rule Systems: Five Years into the Conference

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## Abstract

In this note we retrospect on the five years of the Web Reasoning and Rule Systems conference series and discuss the rationale for the series in the context of the overall field of the Semantic Web, the activities of the Web Reasoning research community, and the development of standards for rule-based systems on the Web. At the end, we draw the reader's attention to the next event in the series, which will take place in Vienna in September 2012.

## 1 How it started

Has the Semantic Web died in its infancy? This was one of the poignant questions in 2006, just before Linked Open Data [1] was introduced, and the field was given a new boost. It was at a point in time where big research funding agencies, such as the European Commission, were revising their programs and reducing funding for the field. By that time, DARPA had already all but stopped funding projects in the area. There was indeed some industry interest, but it was not really catching on big time yet. The outlook for Web Reasoning—the use of Knowledge Representation and Reasoning methods to power the Semantic Web—was similarly bleak: it simply was unclear at that stage if or when the idea will really pick up and whether research funding and industry interest will stay long enough to yield tangible results.

Yet, 2006 was also the year when the Web Reasoning and Rule Systems (RR) conference series was created. While we can only speculate to what extent the uncertain future of the field played a role in this, the conference was in fact a consolidation of previously diverging efforts. The effort was driven mainly by people from the REVERSE Network of Excellence, <http://reverse.net/>, and from the Rule Markup Initiative, <http://ruleml.org/>, plus a few odd-balls (such as the second author). The motivation was to create a high-quality, specialized conference on everything related to Semantic Web Reasoning with a special focus on rule-based approaches.

The first event in the series took place in June 2007 in Innsbruck, Austria (RR2007), co-located with the 2007 European Semantic Web Conference

(ESWC). Around the same time, a steering committee was established, in order to run the conference series. It was an immediate success: the proceedings [12] included 36 papers and, although many details about the conference program and its participants have faded into the mists of time, attendees vividly remember a lively panel discussion on *Ontologies and Rules*.

On the heels of the first successful run, time was ripe to start growing the series further. In the first few years, the plan was to co-locate with the International Semantic Web Conference for some time, which indeed took place in November 2008 (Karlsruhe, Germany) and October 2009 (Chantilly, Virginia, USA). In early 2009, the steering committee was incorporated as an official German association, the *Web Reasoning and Rules Systems Association e. V.*, and it felt adventurous enough to attempt a stand-alone event. RR2010 was then held in Bressanone, Italy, in September 2010. Thus, from a satellite event of other big conferences, RR successfully transitioned into an event with two independent workshops (SWAP 2010 and BuRo 2010) and a summer school (KRDB-2010) co-located.

## 2 Where Are We Now

In the meantime, Web Reasoning has evolved significantly. The Semantic Web as a field received a major boost from the advent of Linked Open Data, and sometimes it seems as if the *Big Data* hype may push other advances aside. However, Web Reasoning standards have kept apace [6]: most prominently the new version of the Web Ontology Language, OWL 2 [5, 13], the Rule Interchange Format, RIF [2, 3, 11], and the inclusion of *entailment regimes* in the next installment of the SPARQL query language [4].

Furthermore, the community started to realize that that Big Data without semantics is just more data [10], and that the use of formal semantics is required to make things work [7, 8, 9]. Although often in a rather shallow way, reasoning is being used by applications—sometimes implicitly, via off-the-shelf components.

Meanwhile, the RR conference series continued picking up the pace. RR2011 was co-located with the 7th Reasoning Web summer school in August 2011 (Galway, Ireland), giving birth to a partnership which will continue also in 2012. Special issues from the RR2010 and RR2011 events are underway to be published in the Semantic Web journal (see <http://www.semantic-web-journal.net/>). In another promising development, the RR conference series continues to attract significant amount of sponsorship.

## 3 Whither Are We Going

*... to Vienna, in fact!*

The 6th International Conference on Web Reasoning and Rule Systems, RR2012, will take place in Vienna, Austria, at the Vienna University of Technology, in September 10-12, 2012, and will feature a number of exciting co-located events:

- the 8th Reasoning Web Summer School;

- the 4th International Conference on Computational Models of Argument (COMMA 2012);
- the 23rd International Conference on Database and Expert Systems Applications (DEXA 2012);
- the 2nd Datalog 2.0 Workshop.

As in the previous years, the Vienna 2012 event solicits contributions in all topics related to Web Reasoning, and is expected to be a lively forum for discussion and dissemination of results in the field.

**FAST FACTS:**

RR2012 Website: <http://www.rr-conference.org/RR2012>

Facebook: <http://goo.gl/shNUJ>

LinkedIn: <http://goo.gl/hOiIu>

**Chairs:**

- \* General Chair: Pascal Hitzler
- \* Program Chairs: Markus Krötzsch, Umberto Straccia
- \* Local Chair: Thomas Eiter
- \* Doctoral Consortium Chair: Alessandra Mileo
- \* Sponsorships Chair: Marco Maratea
- \* Publicity Chair: Francesco Calimeri

**Dates:**

- \* Abstracts: May 14, 2012
- \* Papers: May 23, 2012
- \* Notifications: June 22, 2012
- \* Conference: September 10-12, 2012

Conference Series Website: <http://www.rr-conference.org/>

**Current Steering Committee:**

- \* Riccardo Rosati (president)
- \* Pascal Hitzler (vice president)
- \* Georg Lausen (treasurer)
- \* Francois Bry
- \* Diego Calvanese
- \* Thomas Eiter
- \* Michael Kifer
- \* Jeff Z. Pan
- \* Axel Polleres
- \* Sebastian Rudolph

# Call for Papers

RR 2012

THE 6TH INTERNATIONAL CONFERENCE  
ON WEB REASONING AND RULE SYSTEMS  
Vienna, Austria, 10-12 September 2012  
<http://www.rr-conference.org/RR2012/>

The International Conference on Web Reasoning and Rule Systems (RR) is a major forum for discussion and dissemination of new results concerning Web Reasoning and Rule Systems.

## Highlights in 2012

In addition to regular papers, RR 2012 solicits the submission of TECHNICAL COMMUNICATIONS (TCs) that report about some interesting recent work, preliminary result, or inspiring viewpoints. Selected TCs will be invited for a full presentation like regular papers.

RR 2012 is co-located with a number of interesting events:

- 8th Reasoning Web Summer School: 4-8 September,  
<http://reasoningweb.org/2012/>
- COMMA 2012: 4th Int. Conf. on Computational Models of Argument:  
10-12 September,  
<http://www.kr.tuwien.ac.at/events/comma2012/>
- DEXA 2012: 23rd Int. Conf. on Database and Expert Systems Applications:  
03-07 September,  
<http://www.dexa.org/>
- 2nd Workshop "Datalog 2.0": 11-13 September,  
<http://www.dbai.tuwien.ac.at/event/datalog-2.0/>

The Reasoning Web Summer School is a great opportunity particularly for young researchers to combine with attendance of the conference. Submissions by summer school participants are particularly encouraged.

## Topics

RR welcomes original research from all areas of Web Reasoning. Topics of particular interest are:

- Semantic Web, Rule and Ontology Languages, and related logics
- Reasoning, Querying, Searching and Optimization
- Incompleteness, Inconsistency and Uncertainty
- Non-monotonic, Commonsense, and Closed-World Reasoning for the Web
- Dynamic information, Stream Reasoning and Complex Event Processing
- Decision Making, Planning, and Intelligent Agents
- Reasoning, Machine Learning, Knowledge Extraction and IR Technologies
- Large-scale data management and reasoning on the Web of Data
- Data Integration, Dataspaces and Ontology-Based Data Access
- Non-Standard Reasoning
- Algorithms for distributed, parallelized, and scalable reasoning

- System Descriptions and Experimentation
- Applications and Experience Papers

### Submissions

The conference proceedings will be published by Springer within the Lecture Notes in Computer Science (LNCS) series. Submissions must be prepared in Springer's LaTeX style `lncs` (<http://bit.ly/oPRW8y>). There are two submission formats:

- Full papers (up to 15 pages)  
Original research works in the above areas
- Technical Communications (up to 4 pages)  
Results and ideas with interest to the RR audience, including reports about recent own publications, position papers, and presentations of preliminary results

All accepted submissions will be included in the proceedings, with Technical Communications clearly marked as such. Authors of full papers and of selected Technical Communications will be invited to give a talk at the conference. Authors of all accepted submissions will have the opportunity to present a poster.

Submissions can be made in EasyChair:

<http://www.easychair.org/conferences/?conf=rr2012>

### Important Dates

Abstract submission:	May 14, 2012
Full papers submission:	May 23, 2012
Notification of acceptance:	June 22, 2012

### Invited Speakers

(in preparation)

### Program Committee

- Darko Anicic, Karlsruhe Institute of Technology
- Jean-François Baget, LIRMM Montpellier
- Chitta Baral, Arizona State University
- Salem Benferhat, University of Artois
- Fernando Bobillo, University of Zaragoza
- Gerhard Brewka, University of Leipzig
- François Bry, Ludwig-Maximilians University Munich
- Diego Calvanese, Free University of Bozen-Bolzano
- Vinay Chaudhri, SRI International U.S.A.
- Kendall Clark, Clark & Parsia LLC Washington DC
- Tommaso Di Noia, Technical University of Bari
- Francesco M Donini, University of Tuscia
- Thomas Eiter, TU Vienna
- Michael Fink, TU Vienna

- Birte Glimm, Ulm University
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- Andreas Harth, Karlsruhe Institute of Technology
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- Clemens Kupke, University of Oxford
- Georg Lausen, University of Freiburg
- Domenico Lembo, University of Rome “La Sapienza”
- Francesca Alessandra Lisi, University of Bari
- Thomas Lukasiewicz, University of Oxford
- Wolfgang May, University of Göttingen
- Alessandra Mileo, National University of Ireland Galway
- Ralf Moeller, Hamburg University of Technology
- Marie-Laure Mugnier, University of Montpellier II
- Magdalena Ortiz, TU Vienna
- Jeff Z. Pan, University of Aberdeen
- Rafael Peñaloza, TU Dresden
- Axel Polleres, Siemens AG Österreich
- Andrea Pugliese, University of Calabria
- Guilin Qi, Nanjing University China
- Sebastian Rudolph, Karlsruhe Institute of Technology
- Steven Schockaert, Ghent University
- Mantas Simkus, TU Vienna
- Sergio Tessaris, Free University of Bozen
- Andrei Voronkov, University of Manchester

## Organization

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Program chairs:

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Local Chair:

- Thomas Eiter, TU Vienna

Doctoral Consortium Chair:

- Alessandra Mileo, National University of Ireland Galway

Sponsorship Chair:

- Marco Maratea, University of Genova

Publicity Chair:

- Francesco Calimeri, University of Calabria

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