### SECOND CALL FOR PAPERS

## 4<sup>rd</sup> Workshop on Uncertainty Reasoning for the Semantic Web

http://c4i.gmu.edu/ursw2008

In conjunction with the 7<sup>th</sup> International Semantic Web Conference

Karlsruhe - Germany October 26, 2008

You are invited to participate in the upcoming workshop on Uncertainty Reasoning for the Semantic Web (URSW), to be held as part of the 7th International Semantic Web Conference (ISWC) in October of 2008 in Karlsruhe - Germany.

ISWC is a major international forum for presenting visionary research on all aspects of the Semantic Web. The Uncertainty Reasoning Workshop is an exciting opportunity for collaboration and cross-fertilization between the uncertainty reasoning community and the Semantic Web community.

Effective methods for reasoning under uncertainty are vital for realizing many aspects of the Semantic Web vision, but the ability of current-generation web technology to handle uncertainty is extremely limited. Recently, there has been a groundswell of demand for uncertainty reasoning technology among Semantic Web researchers and developers.

This surge of interest creates a unique opening to bring together two communities with a clear commonality of interest but little history of interaction. By capitalizing on this opportunity, URSW could spark dramatic progress toward realizing the Semantic Web vision.

#### **Audience**

The intended audience for this workshop includes the following

- Researchers in uncertainty reasoning technologies with interest in Semantic Web and Web-related technologies.
- Semantic web developers and researchers.
- People in the knowledge representation community with interest in the Semantic Web.
- Ontology researchers and ontological engineers.
- Web services researchers and developers with interest in the Semantic Web.
- Developers of tools designed to support semantic web implementation, e.g., Jena developers, Protégé and Protégé-OWL developers.

## **Topic List**

We intend to have an open discussion on any topic relevant to the general subject of uncertainty in the Semantic Web (including fuzzy theory, probability theory, and other approaches). Therefore, the following list should be just an initial guide.

- Syntax and semantics for extensions to Semantic Web languages to enable representation of uncertainty
- Logical formalisms to support uncertainty in Semantic Web languages
- Probability theory as a means of assessing the likelihood that terms in different ontologies

- refer to the same or similar concepts
- Architectures for applying plausible reasoning to the problem of ontology mapping
- Using fuzzy approaches to deal with imprecise concepts within ontologies
- The concept of a probabilistic ontology and its relevance to the Semantic Web
- Best practices for representing uncertain, incomplete, ambiguous, or controversial information in the Semantic Web
- The role of uncertainty as it relates to Web services
- Interface protocols with support for uncertainty as a means to improve interoperability among Web services
- Uncertainty reasoning techniques applied to trust issues in the Semantic Web
- Existing implementations of uncertainty reasoning tools in the context of the Semantic Web
- Issues and techniques for integrating tools for representing and reasoning with uncertainty
- The future of uncertainty reasoning for the Semantic Web

### **Important Dates**

July 25, 2008 Paper submissions due
September 5, 2008 Paper acceptance notification
September 26, 2008 Camera-ready papers due

October 26-27, 2008 4<sup>rd</sup> Workshop on Uncertainty Reasoning for the Semantic Web

#### **Submission Details**

The URSW will be accepting submissions of *technical papers* and *position papers*. Each submission will be evaluated for acceptability by at least three members of the Program Committee. Decisions about acceptance will be based on relevance to the above topic list, originality, potential significance, topicality and clarity. Since all accepted papers will be presented at the workshop, we require that at least one of the submitting authors must be a registered participant at the ISWC 2008 Conference, and committed to attend the URSW Workshop.

Submissions to the Workshop are only accepted in electronic format and should be sent via the workshop's submission site: <a href="http://www.easychair.org/conferences/?conf=ursw2008">http://www.easychair.org/conferences/?conf=ursw2008</a>. Papers must be submitted in PDF format, and follow the same submission format used by the ISWC 2008 Conference, the Springer Publications format for Lecture Notes in Computer Science (LNCS), available at <a href="http://www.springeronline.com/sgw/cda/frontpage/0,11855,5-164-2-72376-0,00.html">http://www.springeronline.com/sgw/cda/frontpage/0,11855,5-164-2-72376-0,00.html</a>.

**Technical papers** submitted to the URSW Workshop <u>must not exceed 12 pages</u>, including figures. Submissions exceeding this limit will not be reviewed.

**Position papers** consist of a summary of ideas, projects, or any research efforts that are relevant to the URSW Workshop and **must not exceed 2 pages**.

Following the general acceptance rules of the ISWC 2008 conference, papers that, at the time of submission, are under review for or have already been published in or accepted for publication in a journal or another conference will not be accepted to the URSW workshop.

#### **Presentation and Publication**

URSW 2008 will be a full day workshop with four sessions. Two of those sessions will be devoted to a specific theme, while the remaining sessions will be planned in a format that invites an open debate on the results, conclusions, recommendations, and follow-up work of the W3C Uncertainty Reasoning

for the World Wide Web Incubator Group (http://www.w3.org/2005/Incubator/urw3/XGR-urw3/).

All papers accepted to the URSW will be presented during the workshop and published in the workshop proceedings, which will be available as a separate publication after the Conference. Authors of accepted technical papers will have 20 minutes to present their work, while authors of accepted position papers will have a 5-minute slot to share their ideas.

In addition, both technical and position papers will be published in the URSW Workshop proceedings, to be available after the ISWC 2008 Conference.

### **Program Committee**

The program committee is as follows (in alphabetical order):

- Ameen Abu-Hanna Universiteit van Amsterdam, the Netherlands.
- Fernando Bobillo University of Granada, Spain.
- Silvia Calegari University of Milano-Bicocca, Italy.
- Paulo C. G. Costa George Mason University, USA.
- Fabio G. Cozman Universidade de Sao Paulo, Brazil.
- Claudia d'Amato University of Bari, Italy.
- Ernesto Damiani University of Milan, Italy.
- Nicola Fanizzi University of Bari, Italy.
- Francis Fung Eduworks, Inc., USA.
- Kathryn B. Laskey George Mason University, USA.
- Kenneth J. Laskey MITRE Corporation, USA. Member of the W3C Advisory Board.
- Thomas Lukasiewicz Oxford University, UK.
- Anders L. Madsen Hugin Expert A/S, Denmark.
- M. Scott Marshall Adaptive Information Disclosure, Universiteit van Amsterdam, The Netherlands.
- Trevor Martin University of Bristol, UK.
- Matthias Nickles Technical University of Munich, Germany.
- Yung Peng University of Maryland, Baltimore County, USA.
- Michael Pool Convera, Inc., USA.
- Livia Predoiu Universität Mannheim, Germany.
- Dave Robertson University of Edinburgh, UK.
- Daniel Sánchez University of Granada, Spain.
- Elie Sanchez Université de La Méditerranée Aix-Marseille II, France.
- Oreste Signore Istituto di Scienza e Tecnologie dell' Informazione "A. Faedo", Italy. Manager of the W3C Office in Italy
- Nematollaah Shiri Concordia University, Canada.
- Sergej Sizov University of Koblenz-Landau, Germany.
- Pavel Smrz Brno University of Technology, Czech Republic.
- Umberto Straccia Istituto di Scienza e Tecnologie dell' Informazione "A. Faedo", Italy.
- Heiner Stuckenschmidt Universität Mannheim, Germany.
- Masami Takikawa Cleverset, Inc., USA.
- Peter Vojtas Charles University, Czech Republic.

# **Organizing Committee**

The organizing committee is as follows (in alphabetical order):

- Fernando Bobillo University of Granada, Spain.
- Paulo C. G. Costa George Mason University, USA.
- Claudia d'Amato University of Bari, Italy.
- Nicola Fanizzi University of Bari, Italy.
- Kathryn Laskey George Mason University, USA.
- Ken Laskey MITRE Corporation, USA.
- Thomas Lukasiewicz Oxford University, UK.
- Trevor Martin University of Bristol, UK.
- Matthias Nickles Technical University of Munich, Germany.
- Michael Pool Convera, Inc., USA.
- Pavel Smrz Brno University of Technology, Czech Republic.

We are looking forward to seeing you in Karlsruhe!