



Ninth International Conference on the Principles of Knowledge Representation and Reasoning

June 2 - 5, 2004

Whistler, Canada

Sponsored by KR Inc, IBM, SFU and UTS.

Submission Deadline: November 26, 2003

Knowledge Representation and Reasoning (KR&R) is a vibrant and exciting field of human endeavor. KR&R techniques are key drivers of innovation in computer science, and they have led to significant advances in practical applications in a wide range of areas from Artificial Intelligence to Software Engineering.

Explicit representations of knowledge manipulated by reasoning engines are an integral and crucial component of intelligent systems. Semantic Web technologies and the design of software agents, in particular, provide significant challenges for KR&R.

We intend KR2004 to be a forum for the exchange of news, issues, and results among the community of researchers in the principles and practices of KR&R systems. We encourage papers presenting substantial new results in the principles of KR&R systems that clearly contribute to the formal foundations or show the applicability of the results to implemented and implementable systems. We also encourage "reports from the field" of applications, experiments, developments, and tests. Such papers should be explicitly identified as reports from the field by the authors, to ensure appropriate reviewing, and must include a section on evaluation.

KR2004 will collocate with the International Conference on Advanced Planning and Scheduling (ICAPS-2004), with one day in common. We strongly encourage papers which would be of interest to both communities.

Topics of interest include:

- Exception Tolerant and Inconsistency-Tolerant Reasoning, Default Logics, Conditional Logics, Paraconsistent Logics, Argumentation
- Temporal Reasoning, Spatial reasoning, Causal Reasoning, Abduction, Explanations, Extrapolation, Model-based diagnosis
- Reasoning about Actions, Situation Calculus, Action Languages, Dynamic Logic
- Reasoning, Planning, or Decision Making under Uncertainty, Probabilistic and Possibilistic approaches, Belief Functions and Imprecise Probabilities
- Representations of Vagueness, Many-valued and Fuzzy Logics,
- Concept Formation, Similarity-based reasoning
- Information Change, Belief Revision, Update
- Information Fusion, Ontologies, Ontology Methodology, and Ontologies themselves
- Qualitative reasoning and decision theory, Preference modeling, Reasoning about preference, reasoning about physical systems
- Intelligent agents, negotiation, group decision making, cooperation, interaction, game theory, common knowledge, cognitive robotics
- Algebraic foundations of knowledge representations, graphical representations
- Modal logics and reasoning, belief, preference networks, constraints
- Knowledge representation languages, Description logics, Logic programming, constraint logic programming, inductive logic programming, complexity analysis
- Natural language processing, learning, discovering and acquiring knowledge, belief networks, summarization, categorization
- Applications of KR&R, Knowledge-based Scheduling, WWW querying languages, Information retrieval and web mining, Website selection and configuration, Electronic commerce and auctions
- Philosophical foundations and psychological evidence

Important Dates

Electronic Submission Deadline: November 26, 2003

Notification of acceptance: January 14, 2004

Camera-ready papers due: March 3, 2004

KR2004 Conference: June 2 -5, 2004

Paper Submission

The Program Committee will review extended abstracts rather than complete papers. Submissions must be at most twelve (12) pages, excluding the bibliography, with a maximum of 38 lines per page and an average of 75 characters per line (corresponding to the LaTeX article-style, 12pt). If you have a separate title page containing at most the title, author information, keywords and abstract, this will not be counted in the twelve page limit. Over length submissions will be rejected without review. Authors of accepted papers will be expected to submit substantially longer full papers for the conference proceedings. Authors must submit an online title page and an electronic version of their paper in **pdf format only**. The electronic process will be made available on the KR2004 website closer to the submission date. Papers not in pdf format will be rejected without review.

Invited Speakers

Keynote Speakers

Patrick Doherty, University of Linköping, Sweden
Itzhak Gilboa, Tel-Aviv University, Israel
Peter Patel-Schneider, Bell Labs Research, USA

"Great Moments in Knowledge Representation" Series

John McCarthy, Stanford University
William Woods, Sun Microsystems

Conference Chair: **Mary-Anne Williams**, University of Technology, Sydney, Australia

Program Chairs: **Didier Dubois**, Univ. Paul Sabatier, France & **Christopher Welty**, IBM Watson Research Center, USA

Local Arrangements: **Jim Delgrande**, Simon Fraser University, Canada

Workshops Coordination Chair: **Sheila McIlraith**, Stanford University, USA

Treasurer: **Alankar Karol**, University of Technology, Sydney, Australia

Program Committee

William Andersen, Ontology Works, USA
Franz Baader, University of Dresden, Germany
Philippe Balbiani, IRIT, France
Salem Benferhat, University of Artois, France
Brandon Bennett, University of Leeds, UK
Ronen Brafman, University of Tel-Aviv, Israel
Gerhard Brewka, University of Leipzig, Germany
Marco Cadoli, University of Rome, Italy
Vinay Chaudhri, SRI, USA
Tony Cohn, Leeds, UK
Marie-Odile Cordier, INRIA, France
Adnan Darwiche, UCLA, USA
Ernest Davis, New York University, USA
John Debenham, University of Technology, Sydney
Rina Dechter, UCLA, USA
Jon Doyle, North Carolina State Univ., USA
Thomas Eiter, Vienna University of Tech, Austria
Peter Eklund, University of Queensland, Australia
Thomas Ellman, Vassar College, USA
Richard Fikes, Stanford University, USA
Tim Finin, University of Maryland, USA
Antony Galton, University of Exeter, UK
Aldo Gangemi, ISTC-CNR, Italy
Hector Geffner, University of Pomeu Fabra, Spain
Enrico Giunchiglia, University of Genova, Italy
Carole Goble, University of Manchester, UK
Lluís Godo, IIIIA-CSIC Barcelona, Spain
Asunción Gómez-Pérez, Univ. Poli. de Madrid, Spain
Nicola Guarino, ISTC-CNR, Italy
Pat Hayes, University of West Florida, USA
Andreas Herzig, IRIT, France
Ian Horrocks, University of Manchester, UK
Anthony Hunter, University College London, USA
Henry Kautz, University of Washington, USA
Gabriele Kern-Isberner, Univ. of Hagen, Germany
Jerome Lang, IRIT, France
Fritz Lehmann, Ontology Consulting Corp, USA
Hector Levesque, University of Toronto, Canada
Paolo Liberatore, University of Rome, Italy
Vladimir Lifschitz, University of Texas at Austin, USA
Fangzhen Lin, Hong Kong Univ. Sci. & Tech China
Thomas Lukasiewicz, University of Rome, Italy
Pierre Marquis, Univ. Lens, France
Sheila McIlraith, Stanford University, USA
John-Jules Meyer, Utrecht University, NL
Guy Mineau, Université Laval, Canada
Leora Morgenstern, IBM Research, USA
Erik Mueller, IBM Research, USA
Stephen Muggleton, Imperial College, UK
Daniele Nardi, University of Rome, Italy
Bernhard Nebel, University of Freiburg, Germany
Ilkka Niemela, Tech. Univ. Helsinki, Finland
Lin Padgham, RMIT, Australia
Pavlos Peppas, AIT, Greece
Ramon Pino-Perez, Univ. of Los Andes, Venezuela
David Poole, University of British Columbia, Canada
David Randell, Imperial College London, UK
Marie Christine Rousset, Univ. Paris-Sud, France
Guus Schreiber, University of Amsterdam, NL
Colleen Seifert, University of Michigan, USA
Bart Selman, Cornell University, USA
Stuart C. Shapiro, SUNY Buffalo, USA
Helena Sofia-Pinto, IST Lisboa, Portugal
Liz Sonenberg, University of Melbourne, Australia
Rudi Studer, Univ. Karlsruhe, Germany
Michael Thielscher, Univ. Dresden, Germany
Rich Thomason, University of Michigan, USA
Pietro Torasso, University of Torino, Italy
Mirek Truszczynski, University of Kentucky, USA
Laure Vieu, LOA-ISTC, Italy
Toby Walsh, University of York, UK
Michael Whitbrock, Cycorp, USA
Brian Williams, MIT, USA
Frank Wolter, University of Liverpool, UK
Mike Wooldridge, University of Liverpool, UK