



14th International Conference on Principles of Knowledge Representation and Reasoning



KR 2014 is part of the Vienna Summer of Logic (<http://vsl2014.at/>).

Co-located with DL 2014, NMR 2014, FLoC 2014 (CAV, CSF, ICLP, IJCAR, ITP, LICS, RTA, SAT), and Logic Colloquium 2014.

CALL FOR PAPERS

✦ KR 2014 IMPORTANT DATES

- Submission of abstract:** November 28, 2013
- Paper submission deadline:** December 5, 2013
- Author response period:** January 11-12, 2014
- Notification of acceptance:** January 27, 2014
- Camera-ready papers due:** March 4, 2014
- Conference date:** July 20-24, 2014

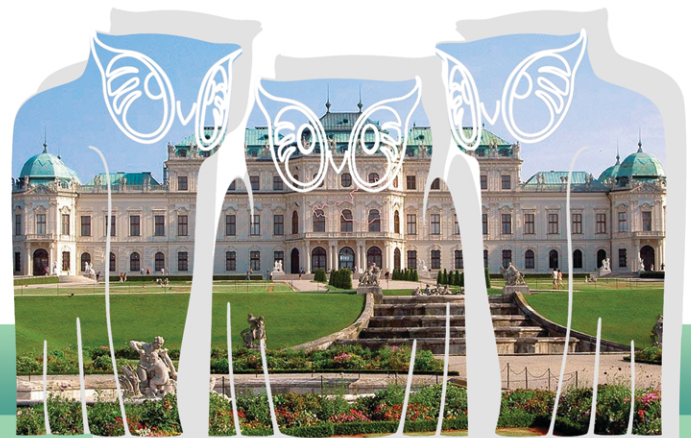
Knowledge Representation and Reasoning (KR&R) is a well-established and vibrant field of research. KR&R techniques are key drivers of innovation in computer science, and they have led to significant advances in practical applications in a wide range of areas from Artificial Intelligence to Software Engineering. The underlying approach of explicitly representing knowledge in a tangible form, suitable for processing by dedicated reasoning engines, is a fundamental component of many modern intelligent systems. Foundational and applied research in KR&R contributes to the principles of artificial intelligence. It also contributes to the foundations of longstanding fields including automated planning, databases, and software engineering. In recent years KR&R has also derived challenges from new and emerging fields including the semantic web, computational biology, and the development of software agents.

The KR conference series is a leading forum for timely in-depth presentation of progress in the theory and principles underlying the representation and computational management of knowledge. The 2014 edition will be held as part of the Vienna Summer of Logic together with the Federated Conference on Logic, Logic Colloquium and other related events. The Vienna Summer of Logic is expected to be the largest convention in the history of logic.

We solicit papers presenting novel results on the principles of KR&R that clearly contribute to the formal foundations of relevant problems or show the applicability of results to implemented or 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.

Vienna, Austria
July 20-24, 2014

<http://kr.org/KR2014/>



✦ TOPICS

Topics of interest include, but are not limited to:

- Applications of KR
- Argumentation
- Belief revision and update, belief merging, information fusion
- Computational aspects of knowledge representation
- Concept formation, similarity-based reasoning
- Contextual reasoning
- Description logics
- Explanation finding, diagnosis, causal reasoning, abduction
- Inconsistency- and exception tolerant reasoning, paraconsistent logics
- KR and autonomous agents, cognitive robotics, multi-agent systems, logical models of agency
- KR and data management, ontology-based data access, queries and updates over incomplete data
- KR and decision making, decision theory, game theory and economic models
- KR and machine learning, inductive logic programming, knowledge discovery and acquisition
- KR and the Web, Semantic Web, formal approaches to knowledge bases
- KR in games, general game playing, reasoning in video games and virtual environments, believable agents
- KR in natural language understanding and question answering
- KR in image and video understanding
- Logical approaches to planning and behavior synthesis
- Logic programming, answer set programming, constraint logic programming
- Nonmonotonic logics, default logics, conditional logics
- Reasoning about norms and organizations, social knowledge and behavior
- Philosophical foundations of KR
- Ontology languages and modeling
- Preference modeling and representation, reasoning about preferences, preference-based reasoning
- Qualitative reasoning, reasoning about physical systems
- Reasoning about actions and change, action languages, situation calculus, dynamic logic
- Reasoning about knowledge and belief, epistemic and doxastic logics
- Reasoning about business processes and services
- Spatial reasoning and temporal reasoning
- Uncertainty, representations of vagueness, many-valued and fuzzy logics, relational probability models



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