

THE IJCAI INTERNATIONAL WORKSHOP ON  
**GRAPH STRUCTURES FOR KNOWLEDGE REPRESENTATION  
AND REASONING**

(GKR 2009 – July 11-13, 2009, Pasadena, California)

<http://www.lirmm.fr/~croitoru/GKR/>

*FIRST CALL FOR PAPERS*

## 1 Workshop at a glance

New challenges, problems, and issues have emerged in the context of knowledge representation in Artificial Intelligence (AI), involving the logical manipulation of increasingly large information sets (see for example Semantic Web, Bioinformatics and so on). Improvements in storage capacity and performance of computing infrastructure have also affected the nature of KRR systems, shifting their focus towards representational power and execution performance. Therefore, KRR research is faced with a challenge of developing knowledge representation structures optimized for large scale reasoning. This new generation of KRR systems includes graph-based knowledge representation formalisms such as Bayesian Networks (BNs), Semantic Networks (SNs), Conceptual Graphs (CGs), Formal Concept Analysis (FCA), CP-nets, GAI-nets, all of which have been successfully used in a number of applications. The goal of this workshop is to bring together the researchers involved in the development and application of graph-based knowledge representation formalisms and reasoning techniques.

## 2 Relevant topics

The workshop welcomes contributions that **address graph-based representation and reasoning paradigms from a *theoretical, algorithmic* or *application* viewpoint**. Such formalisms include but are **not limited to**:

- Bayesian Networks,
- Graphical Models for Preferences (CP-Nets, GAI-Nets),
- Conceptual Graphs,
- Graph-based KR Languages for the Semantic Web,
- Semantic Networks,
- Formal Concept Analysis,
- Existential Graphs,
- Euler Diagrams, etc.

Examples of application domains for using graph based knowledge representation and reasoning include, but are not limited to: *Semantic Web, Bioinformatics, Multi Agent Systems, Recommender Systems etc..*

### 3 Important dates

- ★ **March 6, 2009** – Submission of contributions to workshop
- ★ **April 17, 2009** – Workshop paper acceptance notification
- ★ **May 8, 2009** – Deadline for final camera ready copy
- ★ **July 11-13, 2009** – GKR 2009 Workshop (1 day)

### 4 Submission

Please send your papers using the EasyChair system as detailed on <http://www.lirmm.fr/~croitoru/GKR/submission.html>. Paper format should respect the IJCAI paper format (6 pages maximum).

### 5 Organisers

- Organizing committee:
  - Madalina Croitoru, LIRMM, Univ Montpellier II, France
  - Christophe Gonzales, LIP6, Universite Paris 6, France
  - Jerome Lang, IRIT, CNRS, France
  - Boris Motik, Computing Laboratory, Oxford University, UK
  - Marie-Laure Mugnier, LIRMM, Univ Montpellier II, France
  
- Program committee:
  - Jos de Bruijn, Free University of Bozen-Bolzano, Italy
  - Cornelius Croitoru, Al. I. Cuza Univ., Iasi, Romania
  - Paul Doran, ART, CS, University of Liverpool, UK
  - Mathieu Daquin, KMI, Open University, UK
  - Srinandan Dasmahapatra, ECS, Southampton, UK
  - Kees van Deemter, Univ. of Aberdeen, UK
  - Harry Delugach, Univ. of Alabama, USA
  - Fabien Gandon, INRIA, Sophia Antipolis, France
  - John Howse, Univ of Brighton, UK
  - Robert Jaschke, University of Kassel, Germany
  - Mary Keeler, VivoMind Intelligence, Inc., USA
  - Uffe Kjrluff, Aalborg University, Denmark
  - Michel Leclere, LIRMM, Univ. Montpellier II, France
  - Guy Mineau, Universite Laval, Canada
  - Thomas Dyhre Nielsen, Aalborg University, Denmark
  - Alun Preece, Cardiff University, UK
  - Juan Antonio Rodriguez Aguilar, IIIA, Barcelona, Spain
  - Sebastian Rudolph, AIFB, Karlsruhe, Germany
  - Anne Schlicht, WIN, Mannheim, Germany
  - Rallou Thomopoulos, INRA, UMR IATE, Montpellier, France
  - Dan Tecuci, University of Texas, USA
  - Nic Wilson, Cork Constraint Computation Centre, Ireland