

# 21<sup>st</sup> International Joint Conference on Artificial Intelligence (IJCAI-09)

## Final Call for Papers

The IJCAI-09 Program Committee invites submissions of technical papers for IJCAI-09, to be held in Pasadena, CA, USA, July 11-17, 2009. Submissions are invited on significant, original, and previously unpublished research on all aspects of artificial intelligence.

The theme of IJCAI-09 is “The Interdisciplinary Reach of Artificial Intelligence,” with a focus on the broad impact of artificial intelligence on science, engineering, medicine, social sciences, arts and humanities. The conference will include invited talks, workshops, tutorials, and other events dedicated to this theme.

### Important dates for authors of technical papers:

- Electronic abstract submission: January 7, 2009 (11:59PM, PST)
- Electronic paper submission: January 12, 2009 (11:59PM, PST)
- Author feedback period: March 13-16, 2009 (11:59PM, PDT).  
*Please note: Daylight savings time starts on March 8.*
- Author notification of acceptance/rejection: March 31, 2009
- Camera-ready copy due: April 14, 2009
- Technical sessions: July 13-17, 2009

### Submission Details

Submitted papers must be formatted according to IJCAI guidelines and submitted electronically through the IJCAI-09 paper submission site. Full instructions for submission, including formatting guidelines and electronic templates for paper submission, are available on the IJCAI-09 website: <http://www.ijcai-09.org> (see the link titled **Submission Details**). Submitting authors will be required to register with the IJCAI-09 paper submission software (this will be linked from the IJCAI-09 website during the first week of December, 2008).

Papers may be accepted for either oral or poster presentation; papers accepted for either form of presentation will not be distinguished in the conference proceedings, nor will designation of oral or poster presentation be made on the quality of the contribution. Instead, these distinctions will be made in the interests of overall program coherence and quality.

To facilitate review, the paper title, author names, contact details, and a brief abstract must be submitted electronically by Jan. 7, 2009 (11:59 PST). No paper will be accepted for review unless an accompanying abstract is received by the deadline. Technical papers are due electronically on Jan. 12, 2009 (11:59 PST). Authors bear full responsibility for compliance with submission standards. Submissions received after the deadline or that do not meet the length or formatting requirements will not be accepted for review. No email or fax submissions will be accepted. Notification of receipt of the electronically submitted papers will be emailed to the designated contact author soon after receipt. If there are problems with the electronic submission, the program chair will contact the designated author by email. The last day for inquiries regarding lost submissions is Jan. 19, 2009. Notification of acceptance or rejection of submitted papers will be emailed to the designated author by March 31, 2009. The opportunity to respond to preliminary reviews will be made available to authors prior to this date, during the period March 13-16, 2009. Guidelines for such responses, along with details of the reviewing process will be posted on the IJCAI-09 website. Camera-ready copy of accepted papers must be received by the publisher by April 14, 2009. Note: at least one author of each accepted paper is required to attend the conference to present the work. Authors will be required to confirm their acceptance of this requirement at the time of submission.

Authors who do not have access to the web should contact the program chair at [pcchair09@ijcai.org](mailto:pcchair09@ijcai.org) no later than December 15, 2008 for alternate submission instructions.

## Content Areas

To facilitate the reviewing process, authors will be required to choose two to four appropriate content area keywords from the list provided by the IJCAI-09 submission software, which will be part of the online paper registration process. Authors are encouraged to select the most specific keywords that accurately describe the main aspects of their contributions. General categories should only be used if specific categories do not apply or do not accurately reflect the main contributions. Each keyword is placed within one of ten 10 major themes; however, many of the keywords cut across multiple themes, and authors should feel free to select any keyword descriptive of the contribution, even if the major theme within which it is categorized is not the most appropriate.

### List of keywords:

<p><b><i>Agent-based and Multi-agent Systems</i></b></p> <ul style="list-style-type: none"> <li>• Agent/AI Theories and Architectures</li> <li>• Agent-based Simulation and Emergent Behavior</li> <li>• Agent Communication</li> <li>• Argumentation</li> <li>• Auctions And Market-Based Systems</li> <li>• Coordination And Collaboration</li> <li>• Distributed AI</li> <li>• E-Commerce</li> <li>• Game Theory</li> <li>• Information/Mobile/Software Agents</li> <li>• Multiagent Learning</li> <li>• Multiagent Planning</li> <li>• Multiagent Systems (General/other)</li> <li>• Negotiation And Contract-Based Systems</li> <li>• Social Choice Theory</li> </ul>	<p><b><i>Constraints, Satisfiability, and Search</i></b></p> <ul style="list-style-type: none"> <li>• Applications</li> <li>• Constraint Optimization</li> <li>• Constraint Satisfaction (General/other)</li> <li>• Distributed Search/CSP/Optimization</li> <li>• Dynamic Programming</li> <li>• Search, SAT, CSP: Evaluation and Analysis</li> <li>• Global Constraints</li> <li>• Heuristic Search</li> <li>• Search, SAT, CSP: Meta-heuristics</li> <li>• Meta-Reasoning</li> <li>• Quantifier Formulations</li> <li>• Satisfiability (General/other)</li> <li>• SAT and CSP: Modeling/Formulations</li> <li>• Search (General/other)</li> <li>• SAT and CSP: Solvers and Tools</li> </ul>
<p><b><i>Knowledge Representation, Reasoning and Logic</i></b></p> <ul style="list-style-type: none"> <li>• Action, Change and Causality</li> <li>• Automated Reasoning and Theorem Proving</li> <li>• Belief Change</li> <li>• Common-Sense Reasoning</li> <li>• Computational Complexity of Reasoning</li> <li>• Description Logics and Ontologies</li> <li>• Diagnosis and Abductive Reasoning</li> <li>• Geometric, Spatial, and Temporal Reasoning</li> <li>• Knowledge Representation Languages</li> <li>• Knowledge Representation (General/other)</li> <li>• Logic Programming</li> <li>• Many-Valued And Fuzzy Logics</li> <li>• Nonmonotonic Reasoning</li> <li>• Preferences</li> <li>• Qualitative Reasoning</li> <li>• Reasoning with Beliefs</li> </ul>	<p><b><i>Machine Learning</i></b></p> <ul style="list-style-type: none"> <li>• Active Learning</li> <li>• Case-based Reasoning</li> <li>• Classification</li> <li>• Cost-Sensitive Learning</li> <li>• Data Mining</li> <li>• Ensemble Methods</li> <li>• Evolutionary Computation</li> <li>• Feature Selection/Construction</li> <li>• Kernel Methods</li> <li>• Learning Graphical Models</li> <li>• Learning Preferences/Rankings</li> <li>• Learning Theory</li> <li>• Machine Learning (General/other)</li> <li>• Neural Networks</li> <li>• Online Learning</li> <li>• Reinforcement Learning</li> <li>• Relational Learning</li> <li>• Time-series/Data Streams</li> <li>• Transfer, Adaptation, Multi-task Learning</li> <li>• Semi-Supervised/Unsupervised Learning</li> <li>• Structured Learning</li> </ul>

<p><b><i>Multidisciplinary Topics And Applications</i></b></p> <ul style="list-style-type: none"> <li>• AI and Natural Sciences</li> <li>• AI and Social Sciences</li> <li>• Art And Music</li> <li>• Autonomic Computing</li> <li>• Cognitive Modeling</li> <li>• Computational Biology</li> <li>• Computer Games</li> <li>• Computer-Aided Education</li> <li>• Database Systems</li> <li>• Philosophical and Ethical Issues</li> <li>• Human-Computer Interaction</li> <li>• Intelligent User Interfaces</li> <li>• Interactive Entertainment</li> <li>• Personalization and User Modeling</li> <li>• Real-Time Systems</li> <li>• Security and Privacy</li> <li>• Validation and Verification</li> </ul>	<p><b><i>Natural-Language Processing</i></b></p> <ul style="list-style-type: none"> <li>• Dialogue</li> <li>• Discourse</li> <li>• Information Extraction</li> <li>• Information Retrieval</li> <li>• Machine Translation</li> <li>• Morphology and Phonology</li> <li>• Natural Language Generation</li> <li>• Natural Language Semantics</li> <li>• Natural Language Summarization</li> <li>• Natural Language Syntax</li> <li>• Natural Language Processing (General/other)</li> <li>• Psycholinguistics</li> <li>• Question Answering</li> <li>• Speech Recognition And Understanding</li> <li>• Text Classification</li> </ul>
<p><b><i>Planning and Scheduling</i></b></p> <ul style="list-style-type: none"> <li>• Activity and Plan Recognition</li> <li>• Hybrid Systems</li> <li>• Markov Decisions Processes</li> <li>• Model-Based Reasoning</li> <li>• POMDPs</li> <li>• Plan Execution And Monitoring</li> <li>• Plan/Workflow Analysis</li> <li>• Planning Algorithms</li> <li>• Planning under Uncertainty</li> <li>• Planning (General/other)</li> <li>• Scheduling</li> <li>• Theoretical Foundations of Planning</li> </ul>	<p><b><i>Robotics and Vision</i></b></p> <ul style="list-style-type: none"> <li>• Behavior And Control</li> <li>• Cognitive Robotics</li> <li>• Human Robot Interaction</li> <li>• Localization, Mapping, State Estimation</li> <li>• Manipulation</li> <li>• Motion and Path Planning</li> <li>• Multi-Robot Systems</li> <li>• Robotics</li> <li>• Sensor Networks</li> <li>• Vision and Perception</li> </ul>
<p><b><i>Uncertainty in AI</i></b></p> <ul style="list-style-type: none"> <li>• Approximate Probabilistic Inference</li> <li>• Bayesian Networks</li> <li>• Decision/Utility Theory</li> <li>• Exact Probabilistic Inference</li> <li>• Graphical Models</li> <li>• Preference Elicitation</li> <li>• Sequential Decision Making</li> <li>• Uncertainty Representations</li> <li>• Uncertainty in AI (General/other)</li> </ul>	<p><b><i>Web and Knowledge-based Information Systems</i></b></p> <ul style="list-style-type: none"> <li>• Information Extraction</li> <li>• Information Integration</li> <li>• Information Retrieval</li> <li>• Knowledge Acquisition</li> <li>• Knowledge Engineering</li> <li>• Knowledge-based Systems (General/other)</li> <li>• Ontologies</li> <li>• Recommender Systems</li> <li>• Semantic Web</li> <li>• Social Networks</li> <li>• Source Wrapping</li> <li>• Web Mining</li> <li>• Web Search</li> <li>• Web Technologies (General/other)</li> </ul>

## **Policy on Multiple Submissions**

IJCAI will not accept any paper which, at the time of submission, is under review for or has already been published or accepted for publication in a journal or another conference. Authors are also required not to submit their papers elsewhere during IJCAI's review period. These restrictions apply only to journals and conferences, not to workshops and similar specialized presentations with a limited audience and without archival proceedings. Authors will be required to confirm that their submissions conform to these requirements at the time of submission.

## Paper Length and Format

Submitted technical papers must be no longer than six pages, including all figures and references, and must be formatted according to posted IJCAI-09 guidelines. Specifically, papers must be formatted for “letter-size” (8.5” x 11”) paper, in double-column format with a 10pt font. Electronic templates for the LaTeX typesetting package, as well as a Word template, that conform to IJCAI-09 guidelines will be made available at the conference website (see above) during the first week of December, as will further details on formatting.

Authors are required to submit their electronic papers in PDF format. Files in Postscript (ps), or any other format will *not* be accepted.

Submitted papers must not exceed six (6) formatted pages, including references and figures. This six-page limit will be strictly enforced: over-length papers will not be considered for review. Each accepted paper will be allowed six pages in the proceedings; up to two additional pages may be purchased at a price of \$275 per page. In order to make blind reviewing possible, authors must omit their names and affiliations from the paper. Also, while the references should include all published literature relevant to the paper, including previous works of the authors, it should not include unpublished works. When referring to one's own work, use the third person rather than the first person. For example, say "Previously, Foo and Bar [7] have shown that...", rather than "In our previous work [7] we have shown that..." For accepted papers, such identifying information can be added to the final camera-ready version for publication.

## Review Process

Papers will be subject to blind peer review. Selection criteria include accuracy and originality of ideas, clarity and significance of results and quality of the presentation. Each paper will be assigned to three Program Committee members, one Senior Program Committee member and one Area Chair for review. The reviewing process will include a short period for the authors to view reviews and respond to technical questions on the submitted work raised by the reviewers before final decisions are made. The decision of the Program Committee will be final and cannot be appealed.

Papers accepted for the conference will be scheduled for oral or poster presentation and will be printed in the proceedings. At least one author of each accepted paper will be required to attend the conference to present the work.

Please send inquiries about paper submissions to [ijcai09@aaai.org](mailto:ijcai09@aaai.org).

Inquiries about the conference program can be directed to:

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For further information please visit the conference web site: <http://www.ijcai-09.org>