



Workshop Description:

Many subfields of artificial intelligence and robotics regularly host competitions which impact research communities in many ways, including a scientific, engineering and community dimension. Scientifically, they offer a way to evaluate the state of the art of a subfield by providing a common benchmark on which different approaches to a problem can be compared. From the engineering perspective, they help technology in an area to mature by requiring development of systems that work robustly on unseen problems or by promoting the development of tools or reusable system components for the problem addressed by the competition. From the community perspective, they inspire discussion and attract publicity for a field and help enroll young researchers in a research community.

There are many subfields of artificial intelligence and robotics in which competitions have had a clear influence on the research landscape in past years:

- In robotics, the RoboCup competitions (originally on robotic soccer, recently also in search and rescue scenarios) have attracted huge publicity and inspired a large number of researchers to work on its challenges. RoboCup has effectively evolved into an own subfield where research activity is to a large extent guided by the requirements defined by the competition. More recently, the DARPA Grand Challenge has spurred a flurry of research activity on autonomous navigation in large outdoor areas, leading to impressive improvements of the state of the art.
- In satisfiability testing, the SAT competitions have provided a continuous challenge for solvers that have inspired significant algorithmic innovations for SAT solvers as well as huge improvements in implementation quality (e.g., low-level performance).
- In classical planning, the International Planning Competitions have focused the research community on a common representation language, PDDL, and a set of common benchmarks which have greatly helped comparing different classical planning systems to each other. They have also led to a huge increase in scalability of planning systems on a wide range of problem domains.

But competitions haven't had the same degree of impact in all subfields of artificial intelligence or robotics. In model-based diagnosis for instance the community has just started converging on a generally accepted way of evaluating and comparing different approaches or technologies. Some researchers argue that the missing confidence in the methods used to evaluate approaches has been an obstacle to progress in this area.

Despite the potential advantages resulting from competitions, they have been a source of controversy in many subfields of artificial intelligence. Whereas supporters believe that competitions accelerate research, opponents argue that they often focus research on synthetic problems or preclude research directions that are less aligned with current competitions.

We believe that the methods used to evaluate and compare research have strong implications on future research directions and therefore need to be well designed. Once communities have accepted regular competitions, it can be difficult to create new directions in research. Another important aspect is the question of how competition should evolve as research evolves. Therefore a careful design as well as the actively guided evolution of competitions is essential for its success in the field as well as for the success of the field.

Submission Guidelines:

Participants should submit a paper (maximum 8 pages, significantly shorter submissions are also welcome). We encourage submitting papers that describe competitions and their impact on the field as well as papers from either the perspective of competition organizers or participants. Accepted papers will be presented during the workshop.

Authors are requested to prepare their papers by following the IJCAI instructions found at: <http://www.ijcai-09.org/fcfp.html>.

All submissions are conducted via the CAIR 2009 EasyChair website: <http://www.easychair.org/conferences/?conf=cair09>. Submissions should include the name(s), affiliations, and email addresses of all authors in the body of the email. The deadline for receipt of submissions is April 1, 2009 at 11:59 PST.

For questions about the submission process, contact the workshop co-chairs.

Important Dates:

- **Paper Submission: April 1, 2009**
- Notifications of Acceptance/Rejection: April 17, 2009
- Camera-Ready Papers: May 8, 2009
- Announcement of the Workshop Program: May 22, 2009
- Workshop Date: July 12, 2009

Contact (Workshop Co-Chairs):

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