

# The IJCAI-09 Workshop on General Game Playing

## General Intelligence in Game Playing Agents (GIGA'09)

### Pasadena, CA, USA

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<http://www.ru.is/faculty/yngvi/GIGA09>

Artificial Intelligence (AI) researchers have for decades worked on building game-playing agents capable of matching wits with the strongest humans in the world, resulting in several success stories for games like e.g. chess and checkers. The success of such systems has been for a part due to years of relentless knowledge-engineering effort on behalf of the program developers, manually adding application-dependent knowledge to their game-playing agents. Also, the various algorithmic enhancements used are often highly tailored towards the game at hand.

Research into general game playing (GGP) aims at taking this approach to the next level: to build intelligent software agents that can, given the rules of any game, automatically learn a strategy for playing that game at an expert level without any human intervention. On contrary to software systems designed to play one specific game, systems capable of playing arbitrary unseen games cannot be provided with game-specific domain knowledge a priori. Instead they must be endowed with high-level abilities to learn strategies and make abstract reasoning. Successful realization of this poses many interesting research challenges for a wide variety of artificial-intelligence sub-areas including (but not limited to):

- knowledge representation,
- reasoning,
- heuristic search,
- automated planning,
- computational game-theory,
- multi-agent systems,
- machine learning.

The aim of this workshop is bring together researchers from the above sub-fields of AI to discuss how best to address the challenges of and further advance the state-of-the-art of general game-playing systems and generic artificial intelligence.

#### Information for Authors

The workshop papers should be submitted online (see workshop webpage) and must adhere to the IJCAI paper-formatting guidelines, except that they can be up to 8 pages long and should not be anonymous. The papers must present original work that has not been published elsewhere. However, submissions of papers that are under review elsewhere are allowed, in particular we welcome papers submitted to the main technical track of IJCAI. All papers will be peer reviewed and non-archival working notes produced containing the papers presented at the workshop.

#### Important Dates

- Paper submission: **March 11th**, 2009
- Acceptance notification: April 17th, 2009
- Camera-ready papers due: May 8th, 2009
- Workshop date: July 13, 2009