

CALL FOR PAPERS

2018 IEEE Conference on Computational Intelligence and Games

Maastricht University - Department of Data Science & Knowledge Engineering,
Maastricht, The Netherlands, August 14-17, 2018

<http://www.maastrichtuniversity.nl/cig2018>

Conference Description

Computer games offer not only a killer application for computational intelligence (CI), machine learning and search, but also provide a compelling domain in which problem solving and decision making meet artifact creation, to provide highly immersive, complex and rich interaction experiences.

Additionally, CI methods promise to have a huge impact on game technology and development, assisting designers and developers, and enabling new types of games.

The Computational Intelligence and Games (CIG) conference series brings together leading researchers and practitioners from academia and industry, to discuss recent advances and explore future directions in this field. The annual IEEE Conference on Computational Intelligence and Games (IEEE CIG) is one of the premier international conferences in this exciting and expanding field.

Topics

The topics of interest include, but are not limited to:

- Machine-learning in games
- Adversarial search
- Player/opponent modeling
- AI in education
- Emotion recognition in game-play
- CI/AI-based game design
- Affective modeling
- Player experience
- Procedural content generation
- Game generation
- Intelligent interactive narrative
- Character development and narrative

- CI/AI for virtual cinematography
- Multi-agent and multi-strategy learning
- Applications of game theory
- General game playing
- Serious games

Paper submission types

Full papers: Full papers should be submitted by **March 15**. Full papers have an 8 page limit, and should constitute a technical or empirical contribution to CI/AI in games and be accompanied by an appropriate evaluation of the work. In addition to regular paper submissions the conference offers four alternative types of paper submission: competition, vision, short and demo papers.

Competition papers: These are regular papers (up to 8 pages) that describe one or more entries to the competitions that are running at this year's CIG. Competition papers need to include evaluation of the contribution, including (if possible) results on the same benchmark as that used by the competition, and comparison to other competition entries. Because the problem domain is well-known, these papers can be reviewed faster than regular papers. The same quality standards will apply to competition papers as to regular papers. Competition papers should be submitted by **May 15, 2018**.

Vision papers: These are regular papers (up to 8 pages) describing a vision for the future of the field of computational intelligence and games or some part of it. These papers need to be based on existing literature, be well-written and well argued. In cases where a paper describes a particular technique or domain, the paper should include a survey of that field; all papers should include extensive bibliographies. Papers should not revolve around any particular set of experiments, and need not contain any new empirical results, but are encouraged to outline ambitious future work. The quality standards applied to vision papers are at least as high as for other conference papers. Vision papers should be submitted by **May 15, 2018**.

Short papers: Short papers (2-4 pages): describe work in progress, smaller projects that are not yet ready to be published as a full paper, or new progress on projects that have been reported elsewhere. Any topic related to AI and games is welcome. Short papers should be submitted by **May 15, 2018**.

Demos: Demo submissions should be in the form of a 2-page extended abstract. The submission needs to accompany a demonstration of CI in games. The demo event of IEEE CIG 2018 will showcase the latest CI/AI tools, techniques, and systems created for games by academic or industrial research groups. Demos should be submitted by **May 15, 2018**.

Author guidelines: All paper submissions should follow the recommended IEEE conference author guidelines. MS Word and LaTeX templates can be found at:

https://www.ieee.org/conferences_events/conferences/publishing/templates.html

All submitted papers will be fully peer-reviewed, and accepted papers will be published in the conference proceedings and on IEEE Xplore. Short papers will be allocated poster presentations and short oral presentations if time and space permits; vision papers will be allocated regular oral presentation slots; competition papers will be allocated short or regular oral presentation. Reviewing standards for competition papers are as high as for regular CIG papers, and standards for vision papers are higher.

Important Dates

- January 15, 2018: Competitions/Tutorials/Panels/Special Sessions proposals
- February 1, 2018: Notification of Competitions/Tutorials/Panels/Special Sessions acceptance
- March 1, 2018: Abstract submission deadline
- March 15, 2018: Paper submission deadline
- May 1, 2018: Notification of acceptance
- May 15, 2018: Competition/Vision/Demo/Short paper submission deadline
- June 1, 2018 Final paper submission deadline
- June 15, 2018: Early bird (and author) registration deadline
- August 14, 2018: Conference begins

Organizing Committee

- **General Chair:** Mark Winands (Maastricht University)
- **Program Chairs:** Yngvi Björnsson (Reykjavík University), Jialin Liu (Queen Mary University of London), Mike Preuss (ERCIS, WWU Münster)
- **Proceedings Chair:** Cameron Browne (RIKEN Institute)
- **Tutorial and Keynote Chair:** Stylianos (Stelios) Asteriadis (Maastricht University)
- **Special Session Chair:** Santiago Ontañón (Drexel University)
- **Competition Chair:** Diego Perez (University of Essex)
- **Finance Chair:** Gerasimos Spanakis (Maastricht University) and Kostas Karpouzis (National Technical University of Athens)
- **Publicity Chair:** Mirela Popa (Maastricht University)
- **Local Arrangement Chair:** Chiara Sironi (Maastricht University) and Enrique Hortal Quesada (Maastricht University)