

2022 IEEE Conference on Games

<https://ieee-cog.org/>

August 21-24, 2022, Beijing, China

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Introduction

IEEE Conference on Games (CoG) 2022 will be held from August 21st to 24th, 2022 at Beijing, China. This is the first time for the IEEE CIS flagship conference CoG to come to China, welcomed by the booming game industry and academia in China and all the world. Games not only establish one of the most profitable industries worldwide, but also offer a general and challenging environment for the advance of Artificial Intelligence (AI) and Computational Intelligence (CI). The annual IEEE Conference on Games (IEEE CoG) brings together leading researchers and practitioners from academia and industry in the field of games to discuss recent advances and explore future directions. It covers all topics in the field of games, from game design to game intelligence and game theory, including scientific, technical, engineering and societal aspects.

Topic (All aspects of games, including, but not limited to, the following areas)

- Artificial/Computational Intelligence in Games
 - Deep learning / reinforcement learning / evolutionary computation / fuzzy systems / multi-agent systems / tree and graph search methods / knowledge-based methods / artificial general intelligence in games
 - Real-world problem solving and decision-making
 - Game theory
- Game Design
 - Procedural content generation / Game balance
 - Automatic game design and optimization
 - Mixed-initiative game design
 - Human-AI cooperative creativity
- Game Technologies
 - Multimedia technologies in games
 - Game interfaces and user interaction
 - Virtual and augmented reality
 - Game adaptation and content generation
 - Player modeling
 - Affective modeling and emotion recognition
 - Character development
 - Virtual cinematography
- Game Benchmarks and Competitions
 - Integrated game environment
 - State-of-the-art game AI / General game AI
- Game to Real World
 - Game education / Simulation training

Call for Tutorials

We invite submissions for tutorials to be held at IEEE CoG 2022. This is an opportunity for you to share your expertise and influence future research directions in the CoG community. Tutorials can be on any topic in the scope of the conference.

Call for Competitions

We invite proposals for competitions to be held at the conference. These may be completely new ones or competitions held already in the last years, possibly at other venues. Competitions can be based on well-known games, but competitions based on custom-made and lesser-known games are also welcome.

Call for Special Session Proposals

A special session addresses one or more topic areas within games research and is intended to bring together researchers working on those topics to provide an excellent session at the IEEE CoG 2022. Please read the call for papers for CoG 2022 and its list of topics before submitting your special session proposal.

Call for Industry Talk Proposals

The industry day is an open day with topics provided by and focused on the games industry and how it links to research in games. We welcome talk proposals from the games industry that wish to present their work on the areas covered in this conference. We are interested in presentations about research prototypes, commercial products, indie/mobile/AAA games, AR/VR applications, etc., as well as participation on poster sessions and discussion panels.

Papers and Presentations (Peer-review is *double-anonymous*)

Full technical papers: Full papers have an 8 page limit (including references and appendices), and should constitute a technical or empirical contribution to scientific, technical, and engineering aspects of games.

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.

Competition papers (8 pages) describe research related to one of the conference competitions, including the design of new competitions and in particular submissions to existing competitions.

Vision papers (8 pages) describe a vision for the future of the Games field or some part of it, are based on extensive research and include a comprehensive bibliography. Standards for competition papers are as high as for other CoG papers, and standards for vision papers are higher.

Demo papers (2 pages) describe work in progress and will be presented during a demo session.

As with IEEE CoG 2022, we will invite the principal authors to submit an extended version of their papers to the IEEE Transactions on Games (ToG), etc.

Important Dates (All times are anywhere on Earth, and are firm *without extension*)

Competitions, Tutorials, and Special Session Proposals..... 15th January, 2022
Regular Papers (Full Technical Papers)..... 1st March, 2022
Auxiliary Papers (Short, Competition, Vision, and Demo) 14th May, 2022
Travel Grants..... 14th May, 2022
Games Industry Talks..... 11th June, 2022
Early bird (and author) registration..... 30th June, 2022

