Modern societies are becoming dependent on information, automation, and communication technologies more than ever. Managing the security of the emerging systems, many of them safety critical, poses significant challenges. The 12th Conference on Decision and Game Theory for Security will take place from October 25-27, 2021 as an **online event**, jointly organized by the Czech Technical University in Prague and Carnegie Mellon University. It focuses on protection of heterogeneous, large-scale and dynamic cyber-physical systems as well as managing security risks faced by critical infrastructures through rigorous and practically relevant analytical methods. GameSec 2021 invites novel, high-quality theoretical and practically relevant contributions, which apply decision and game theory to security problems. The goal of the conference is to bring together academic, government, and industrial researchers in an effort to identify and discuss the major challenges and recent results that highlight the connections between game theory, control, distributed optimization, machine learning, economic incentives, real-world security, reputation, trust and privacy problems. This year, GameSec 2021 provides a special track to researchers involved in the behavioral aspects of decision and game theory in security problems.

MAIN TOPICS

- Game theory, control, and mechanism design for security and privacy
- Decision making for cybersecurity and security requirements engineering
- Security and privacy for the Internet-of-Things, cyber-physical systems, cloud computing, resilient control systems, and critical infrastructure
- Pricing, economic incentives, security investments, and cyber insurance for dependable and secure systems
- Risk assessment and security risk management
- Security and privacy of wireless and mobile communications, including user location privacy
- Socio-technological and behavioral approaches to security
- Empirical and experimental studies with game, control, or optimization theory-based analysis for security and privacy
- Adversarial Machine Learning and the role of AI in security
- Behavioral science, decision making, heuristics and biases

Special Track on "Behavioral Decision and Game Theory "
Game theory traditionally presumes a utility maximization paradigm in the prediction of behavior, yet empirical research shows that humans follow more complex patterns of behavior. Comprehensive security needs to address the human factor, since security highly depends on human-machine teaming and human understanding, adherence and trust on security mechanisms. This track invites research that addresses behavioral aspects of decision and game theory relevant to security models, including models of human behavior, and experimental approaches to security. *For submissions, please use the topic "Behavioral Decision and Game Theory."*

Call for Papers

Call for Demos
This year's conference will introduce a special session for work in progress that may not yet have reached a level of maturity to submit a full research paper, but nonetheless may show some nice algorithms or implementation to discuss with fellows from the community. We explicitly invite people to show their ongoing work at the conference, such as new or updated algorithms, implementations, etc. in a live session or pre-recorded video of at most 10min. Topics are as for the main conference, with the focus here being on practical matters of computation in game theory. The goal is to generate interest and get informed about practical solutions and computational methods in game theory, seeing them at work in addition to reading about them in research papers.

For demo submissions, please send an abstract about your planned demo, with no more than 200-400 words over the web form on the conference website.

IMPORTANT DATES

Abstract submission (optional): July 26th, 2021
Submission (all kinds): August 2nd, 2021
Decision notification: September 5th, 2021
Camera-ready submission: September 12th, 2021
Conference: October 25 – October 27, 2021