



Association for  
Computing Machinery

*Advancing Computing as a Science & Profession*

## Media Advisory

### ACM CCS Conference Highlights Latest Trends and Challenges in Cybersecurity

**New York, NY, November 10, 2021** —The Association for Computing Machinery’s Special Interest Group on Security, Audit and Control (ACM SIGSAC) will hold its flagship annual conference on [Computer and Communications Security \(CCS 2021\)](#) November 15-19. The conference will be conducted virtually. Now in its 28th year, CCS presents the leading scientific innovations in all practical and theoretical aspects of computer and communications security and privacy.

The conference brings together information security researchers, practitioners, developers, and users from all over the world to explore cutting-edge ideas and results.

This year’s program includes close to 200 research presentations, three keynote talks, 26 posters/demos, and 13 workshops.

#### CCS 2021 Highlights

Explore the full [CCS 2021 program](#).

#### Keynotes

“Pseudo-Randomness and the Crystal Ball”

*Cynthia Dwork, Harvard University*

Establishing the probability non-repeatable events is an important starting point for building any ideal algorithm. Dwork’s talk will introduce Outcome Indistinguishability, a desideratum with roots in complexity theory, and situate it in the context of research on the theory of algorithmic fairness.

“Towards Building a Responsible Data Economy”

*Dawn Song, University of California, Berkeley*

Song will explore the technologies needed for responsible data use, including secure computing, differential privacy, federated learning, and blockchain technologies for data rights. She will discuss how to combine privacy computing technologies and blockchain to build a platform for a responsible data economy and to enable more responsible use of data that

maximizes social welfare and economic efficiency while protecting users' data rights and enable fair distribution of value created from data.

**“Are we done yet? Our journey to fight against memory-safety bugs”**

*Taesoo Kim, Georgia Institute of Technology and Samsung Research*

In his talk, Kim will share his team's journey to fight against memory-safety bugs at the SSLab at Georgia Tech. This includes participation in the DARPA CGC, DEFCON CTF and pwn2own competitions, future efforts with a promising new memory/thread-safe language, called Rust, and a projection based on finding bugs in the Rust packages.

## **MEDIA REGISTRATION**

Contact Jim Ormond at [ormond@hq.acm.org](mailto:ormond@hq.acm.org) for media registration and related inquiries.

### **About SIGSAC**

The mission of the [ACM Special Interest Group on Security, Audit and Control \(SIGSAC\)](#) is to develop the information security profession by sponsoring high quality research conferences and workshops. SIGSAC conferences address all aspects of information and system security, encompassing security technologies, secure systems, security applications, and security policies.

### **About ACM**

[ACM, the Association for Computing Machinery](#), is the world's largest educational and scientific computing society, uniting educators, researchers and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.

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