



Association for
Computing Machinery

NEWS RELEASE

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ACM HONORS THOSE WHO SHAPE TECHNOLOGY'S FUTURE

Global Computing Society Recognizes Scientists Whose Work Has Impacted Autonomous Agents, Cryptography, and Software for Parallel Computers

New York, NY, May 1, 2025 – ACM, the Association for Computing Machinery, today announced the recipients of three prestigious technical awards. This year's awardees are recognized for groundbreaking innovations to autonomous systems, cryptography, and software for parallel computers. ACM will present these and other awards at its annual awards banquet on June 14 in San Francisco.

Peter Stone, Professor, University of Texas at Austin and Chief Scientist, Sony AI, receives the **ACM - AAAI Allen Newell Award** for significant contributions to the theory and practice of artificial intelligence (AI), especially in reinforcement learning, multiagent systems, transfer learning, and intelligent robotics.

As a leading figure in AI research, Stone has fundamentally advanced how autonomous agents learn, plan, and collaborate. His groundbreaking work on reinforcement learning algorithms has enabled robots to acquire skills through experience. At the same time, his innovations in multiagent coordination have transformed how teams of agents operate collectively toward shared goals.

[The ACM - AAAI Allen Newell Award](#) is presented to an individual selected for career contributions that have breadth within computer science, or that bridge computer science and other disciplines. The Newell award is accompanied by a prize of \$10,000, provided by ACM and the Association for the Advancement of Artificial Intelligence (AAAI), and by individual contributions.

William Gropp, University of Illinois; **Pavan Balaji**, Meta; **Rajeev Thakur**, **Yanfei Guo**, **Kenneth Raffenetti**, and **Hui Zhou** (all of Argonne National Laboratory), receive the **ACM Software System Award** for MPICH, which has powered 30 years of progress in computational science and engineering by providing scalable, robust, and portable communication software for parallel computers.

The development of the MPICH software system began in 1992 as proof-of-concept for the emerging Message Passing Interface (MPI) standard. The project not only demonstrated the feasibility of MPI but also played a pivotal role in shaping the standard itself—guiding it toward a design that was both straightforward to use and practical to implement. The name "MPICH" reflects a combination of "MPI" with "Chameleon," a predecessor system on which the original implementation was based.

By making MPI broadly accessible and effective in practice, MPICH established MPI as a universal standard for parallel computing. It enabled researchers and developers to write portable parallel programs that could seamlessly move across teams, institutions, and platforms—unlocking unprecedented collaboration and accelerating progress in science and engineering worldwide.

The ACM Software System Award is presented to an institution or individual(s) recognized for developing a software system that has had a lasting influence, reflected in contributions to concepts, in commercial acceptance, or both. The Software System Award carries a prize of \$35,000. Financial support for the Software System Award is provided by IBM.

Hugo Krawczyk, Senior Principal Scientist, Amazon, receives the **ACM Paris Kanellakis Theory and Practice Award** for pioneering and lasting contributions to the theoretical foundations of cryptographically secure communications, and to the protocols that form the security foundations of the Internet.

Krawczyk's most high-profile contribution is his work on the SIGMA authenticated key-exchange protocol. SIGMA has become a cornerstone of the most widely used communication protocols on the Internet. It is now implemented in billions of devices and web browsers, making it a fundamental component of online security. This widespread adoption underscores the importance and impact of Krawczyk's work in the field of cryptography

The ACM Paris Kanellakis Theory and Practice Award honors specific theoretical accomplishments that have had a significant and demonstrable effect on the practice of computing. This award is accompanied by a prize of \$10,000 and is endowed by contributions from the Kanellakis family, with additional financial support provided by ACM's Special Interest Groups on Algorithms and Computation Theory (SIGACT), Design Automation (SIGDA), Management of Data (SIGMOD), and Programming Languages (SIGPLAN), the ACM SIG Projects Fund, and individual contributions.

About ACM

ACM, [the Association for Computing Machinery](#), is the world's largest educational and scientific computing society, uniting computing 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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