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CAST Newsletter

2026 Zhongguancun Forum on Development of International Science and Technology Organizations and Global Science and Technology Governance opens in Beijing

Headlines

Statement

Starting March 27, 2026, the China Association for Science and Technology (CAST) will no longer accept funding applications for scholars attending the 40th Annual Conference on Neural Information Processing Systems (NeurIPS 2026). The funding previously allocated for NeurIPS attendance will now be fully redirected to supporting scholars' participation in esteemed domestic academic conferences, or made available for international conferences that respect the rights and interests of Chinese scholars, uphold the principles of openness and cooperation, abide by the ethics of the academic community, and enjoy outstanding academic influence.

Academic papers accepted by NeurIPS 2026 will no longer be recognized as representative achievements when applying for projects funded by CAST. Meanwhile, CAST still recognizes the academic influence of such papers by Chinese scholars, as long as they are fairly evaluated by relevant national societies of China in accordance with academic norms.

China Association for Science and Technology
March 27, 2026

Headlines

2026 Zhongguancun Forum on Development of International Science and Technology Organizations and Global Science and Technology Governance opens in Beijing

On March 28, as part of the 2026 Zhongguancun Forum Annual Conference, the Forum on the Development of International Science and Technology Organizations and Global Science and Technology Governance was held at the Zhongguancun International Innovation Center in Beijing. Under the theme of "Extensive Consultation, Joint Contribution and Shared Benefits," the forum focused on three key areas: innovation in global science and technology governance systems;

the transformation of international science and technology organizations and China's role; and the coordination between science, technology, and regulatory frameworks. The program featured keynote speeches, outcome releases, signing and launch ceremonies, and academic discussions. It aimed to build a high-level platform for international exchange and dialogue and to strengthen the integration of global science and technology resources.

Participants of the forum

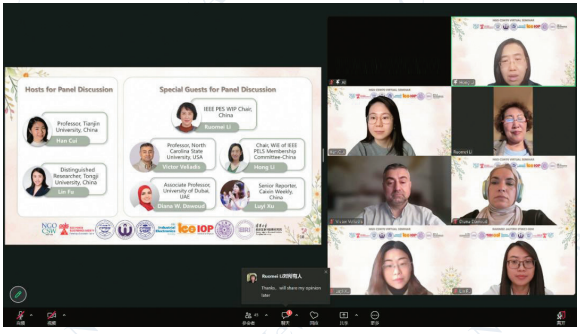
The keynote and academic sessions addressed cutting-edge issues in international scientific cooperation and global governance. Experts presented on topics such as "From Connectivity to Co-innovation: A New Paradigm for International Innovation Cooperation" and "Current Trends and Developments in International Associations." Drawing on perspectives including the restructuring of global innovation networks and the evolving roles of international organizations, they shared both theoretical insights and practical experience. Scholars and experts from institutions including Tsinghua University, Liaoning University, the Hong Kong University of Science and Technology, and the Global Energy Interconnection Development and Cooperation Organization (GEIDCO) offered in-depth analyses of pathways to stable international scientific cooperation and the role of artificial intelligence in global governance. These discussions further broadened perspectives on the participation of international science and technology organizations in global governance.

At the academic seminar, young scholars from various research institutes engaged in discussions on topics such as governance structures and multi-stakeholder coordination in international science and technology organizations; rule-making and global applicability; linkages between domestic and international organizations; and support systems, talent development, and institutional optimization. Through forward-looking perspectives and practical insights, they contributed innovative ideas for the development of international science and technology organizations and generated valuable intellectual input for advancing collaboration

among government, industry, academia, and research in improving global science and technology governance.

(Source: Official WeChat account of the Headquarters of the International Science and Technology Organizations)

Global experts discuss AI in Science: Women's Deep Engagement from Lab Innovation to Global Impact



Speakers at the online seminar

On March 21, 2026, the online seminar "AI in Science: Women's Deep Engagement from Lab Innovation to Global Impact," held as a parallel event of the 70th session of the United Nations Commission on the Status of Women (NGO CSW70), concluded. The event was co-organized by the CAST-UN Consultative Committee on Women Scientists and Gender Equity & Solidarity; the Women in Engineering Committee (WiE) of the IEEE Power Electronics Society (PELS) China Membership Committee; and the Working Committee of Female Scientists of the China Power Supply Society (WiS-CPSS).

The seminar brought together experts and scholars from the United States, Italy, Norway, the United Arab Emirates, South Africa, and other countries. Participants engaged in in-depth discussions on topics including AI applications, energy management, power electronics, intelligent communications, women's development, and gender equality. The dialogue explored the roles, opportunities, and challenges facing women in science and technology in the context of rapid advances in artificial intelligence.

Professor Qiao Jie—CAST Vice President, a member of the Chinese Academy of Engineering, President of Peking University Health Science Center, and Director of the CAST-UN Consultative Committee on Women Scientists and Gender Equity & Solidarity—attended the opening ceremony and delivered a keynote address. She noted that artificial intelligence is profoundly transforming biomedicine and healthcare by accelerating the analysis of complex data and improving diag-

nostic and treatment capabilities. She emphasized that women scientists are playing an increasingly vital role in driving laboratory innovation, advancing interdisciplinary research, and ensuring that technological progress remains responsible and equitable. She also called for building a scientific community in which women's contributions are fully recognized.

The NGO CSW70 online seminar focused on cutting-edge issues, fostered consensus, and promoted collaboration, providing an important international platform for women's deeper engagement in AI, science, and engineering. The CAST-UN Consultative Committee on Women Scientists and Gender Equity & Solidarity was officially established on March 22, 2022, with approval from the CAST Department of International Affairs, and its secretariat is housed within the China Women's Association for Science and Technology (CWAST). Looking ahead, the Committee will continue to strengthen dialogue, build channels for communication and collaboration, and deepen cross-regional and international cooperation on issues such as women's development and open science. It will also align its work with the United Nations 2030 Sustainable Development Goals, actively participate in global science and technology governance, and promote the integration of gender perspectives into mainstream decision-making.

(Source: Official website of CWAST)

Academic Exchange

Asia Simulation Federation achieves ISO 37301 Compliance Management Certification

Recently, the Asia Simulation Federation (ASIASIM) obtained certification under the ISO 37301:2021 Compliance Management System, awarded by DNV. This milestone represents authoritative recognition of ASIASIM's compliance management standards and governance capabilities and reflects its systematic efforts to strengthen governance and enhance risk prevention and control.


DNV

MANAGEMENT SYSTEM CERTIFICATE

This is to certify that the management system of

Asia Simulation Federation

166 Shuanghongqiao Street, Pingyao Town, Yuhang District, Hangzhou, Zhejiang, China
and the sites as mentioned in the appendix accompanying this certificate

has been found to conform to the Compliance Management System standard:
GB/T 35770:2022 / ISO 37301:2021

This certificate is valid for the following Scope:

Activities in the Field of Simulation and Related Areas Including Conference Forums, Operation and Management of Academic Journals, International Exchanges, Personnel Training and Science Popularization

Certification certificate issued to ASIASIM

ISO 37301 is the first international standard for compliance management systems issued by the International Organization for Standardization (ISO). It is designed to help organizations systematically identify compliance

obligations, effectively manage compliance risks, and continuously improve governance through structured mechanisms.

Since initiating the certification process, ASIASIM has focused on institutional development, process optimization, and risk control, establishing a comprehensive compliance management system aligned with international standards. During the system development and trial phases, it benchmarked its practices against ISO 37301, conducted targeted training and awareness programs, and continuously strengthened members' compliance awareness and professional capabilities. Through multiple rounds of internal audits and management reviews, ASIASIM carried out comprehensive evaluations of system performance and implemented targeted improvements to ensure the effective implementation of policies and procedures. It ultimately passed both document review and on-site assessment, fully demonstrating the effectiveness and maturity of its compliance management system.

(Source: Official WeChat account of the China Center for International Science and Technology Exchange)

International Awards

Two bridges nominated by China Highway & Transportation Society win 2026 IBC Awards

Recently, the evaluation for the 2026 International Bridge Conference (IBC) awards was completed. Two bridges nominated by the China Highway & Transportation Society received top honors: the Nanjing Xinshengwei Yangtze River Bridge was awarded the Gustav Lindenthal Medal, and the Wumengshan Bridge on the Nayong-Qinglong Expressway received the Eugene C. Figg Jr. Medal.

Nanjing Xinshengwei Yangtze River Bridge

The Nanjing Xinshengwei Yangtze River Bridge is a single-span suspension bridge with a main span of 1,760 meters. Since opening to traffic in 2025, it has reduced travel time across the Yangtze River from one hour to just ten minutes, significantly enhancing urban integration. With its long span and relatively narrow deck, the bridge faces significant wind-resistance challenges. The project team developed advanced aerodynamic control technologies that substantially increased the critical flutter wind speed, suppressed vortex-induced vibrations under low damping conditions, and improved overall wind resilience. As the bridge links major chemical industrial zones across the river, it faces an elevated fire risk from hazardous materials transport. To address this, the team developed a multifunctional fire-resistant composite material for the main cables and established an integrated fire- and corrosion-protection system for steel components, effectively mitigating fire hazards. The project also introduced, for the first time, an anchorage foundation design method that accounts for soil resistance, optimizing structural performance. In addition, a new 2,100 MPa high-strength steel wire was developed to further enhance the load-bearing capacity and spanning capability of the main cables.

Wumengshan Bridge on the Nayong-Qinglong Expressway

The Wumengshan Bridge is located in Zhongzhai Township, Liuzhi Special District, Liupanshui, Guizhou Province, and serves as a key control project on the G7612 Nayong-Qinglong Expressway. Spanning the U-shaped Azhi River Canyon, the bridge rises 310 meters from deck to valley floor, with a main span of 270 meters and a total length of 511 meters. The project achieved multiple technological breakthroughs during construction. Structurally, it adopts an innovative composite section of concrete top and bottom slabs with steel truss webs, reducing the self-weight of the arch ring by approximately 30%. This design better accommodates mountainous terrain and offers a new solution for long-span bridges. In terms of equipment, the team developed a 300-ton, tower-free cable crane system with lateral mobility, overcoming the challenge of

erecting towers in deep valleys. Construction followed an integrated approach combining factory prefabrication with on-site assembly, improving both standardization and efficiency. The project also integrates innovation with green development principles. Techniques such as a dual-level assembly yard and combined permanent-temporary anchoring systems reduced earthwork excavation by 60,900 cubic meters, minimizing environmental impact. The use of composite admixtures in concrete partially replaced cement, saving 3,238 tons and reducing carbon emissions by 2,060 tons. Overall, the project provides a model for sustainable infrastructure development.

(Source: Official WeChat account of the China Center for International Science and Technology Exchange)

Scientist Profile

A decade of innovation: Liu Chunsen's journey in chip technology

Liu Chunsen is a young research fellow and doctoral supervisor at the Frontier Institute of Chip and System at Fudan University. His research focuses on the design of novel logic and memory devices and their system-level integration. He has published more than 30 papers as first or corresponding author in leading journals and conferences, including *Nature* (2 papers), *Nature Nanotechnology* (6 papers), *Nature Electronics*, and the IEEE International Electron Devices Meeting (IEDM). Grounded in the fundamental principles of Maxwell's equations, Liu combines rigorous theoretical modeling with experimental innovation. He has developed "Poxiao" ("Dawn"), a two-dimensional flash memory device that achieves ultrafast non-volatile storage with a switching speed of 400 picoseconds. Building on this work, he further proposed an "atomic chip" system integration framework, deeply integrating two-dimensional flash memory technology with mature silicon CMOS processes. This approach addresses key challenges in the engineering and commercialization of two-dimensional information devices, enabling the development of a hybrid 2D-silicon flash memory architecture.

Photo of Liu Chunsen

For Liu Chunsen, 2025 was undoubtedly a year of remarkable achievement. He developed semiconductor charge-storage technologies and hybrid 2D-silicon architecture chips, with two of his research findings published in *Nature* within just six months. He was also include on the MIT Technology Review's 2025 Asia-Pacific list of "Innovators Under 35." As the creator of the "Dawn" flash memory device, he is also a meticulous scholar and a dedicated mentor.

A decade of exploration: A new "Dawn"

In 2015, Liu graduated from the College of Electronic Science and Engineering at Jilin University and joined the School of Microelectronics at Fudan University, where he became Professor Zhou Peng's first student and began research on two-dimensional semiconductor materials.

In the early years, research often felt like "survival-mode science." The lab was built from scratch, and the team worked with whatever equipment was available. "It was often driven by flashes of inspiration," Liu recalled. "When we saw others making devices with a certain material, we would ask ourselves whether we could try something similar."

The turning point came in 2018. By leveraging the ease with which two-dimensional materials can be integrated into heterostructures, the team developed a semi-floating-gate flash memory architecture, increasing access speed to 10 nanoseconds. The work was published in *Nature Nanotechnology*. Yet Liu remained unsatisfied, asking a fundamental question: why can electrons not achieve both ultrafast speed and non-volatility simultaneously?

Driven by this question, the research deepened step by step. In 2021, the team identified an ultrafast charge-storage mechanism based on a double-triangular tunneling barrier and developed a flash memory device using van der Waals heterostructures. The device achieved 20-nanosecond operation while retaining data for ten years, and the results were again published in *Nature Nanotechnology*. In April 2025, the team developed the "Dawn" picosecond flash memory device, achieving an erase-and-write speed of 400 picoseconds—about one million times faster than conventional flash memory. The results were published in *Nature* and later incorporated into the history section of Wikipedia's "Flash Memory" entry.

At the same time, the team was tackling the challenge of integrating two-dimensional materials with CMOS technology. In 2024, they proposed an innovative process based on

modularized fabrication and monolithic interconnection, known as the "Changying (CY-01) architecture." In October 2025, using this approach, they integrated "Dawn" with mature silicon-based CMOS processes and developed the first hybrid 2D–silicon flash memory chip. This work was once again published in *Nature*.

Embracing change: Journey over outcome

In the early years, research conditions were extremely challenging. Liu recalls that some of the data in his first *Nature Nanotechnology* paper were produced in a makeshift laboratory.

In 2021, he joined the Frontier Institute of Chip and System at Fudan University, yet the challenges persisted. When faced with setbacks, he does not suppress his emotions. "Letting off steam may bring temporary relief," he says, "but the only real way to resolve frustration is to solve the problem."

In choosing research directions, Liu moved beyond a pragmatic "work with what you have" approach to asking deeper questions: what kind of research truly matters? Beginning in 2021, he led his team toward system-level integration. "It took real determination," he notes. "Continuing with device-level research would have made publishing easier, but pursuing integration meant slower results." Today, that decision has paid off, with the team building world-class capabilities in system integration.

Even now, Liu continues to reinvent himself—constantly refining his notetaking, task management, and mentoring approaches. "I'm still changing every day," he says. "Whenever I see something that could be improved, I adjust it."

This capacity for continuous growth has been key to the team's sustained breakthroughs. For Liu, the essence of scientific research lies in embracing the process: "If one is determined to cross the mountains, why fear the raging waves? When the winds rise and the waters surge, it is precisely the moment to set sail."

(Source: *Shanghai Observer*)

Upcoming Conferences

2026 International Forum on Large Electric System to convene in Beijing

The 2026 International Forum on Large Electric System (IFLES 2026) will be held in Beijing from May 26 to 28. The forum is initiated by the CIGRE Chinese National Committee and jointly organized by the Chinese Society for Electrical Engineering (CSEE) and

Huairou Laboratory. As the forum's inaugural edition, it aims to establish a flagship international conference brand for the Chinese National Committee, bringing together leading experts from around the world in the field of large power grids. It will serve as a high-level, open platform for international exchange and dialogue, with the goal of developing into a globally influential conference in power system technologies.

Under the theme "Large Power Grids with Digital Intelligence and Power Electronics," the forum will invite domestic and international grid operators, research institutions, and international standardization organizations. Discussions will focus on the transformative impact of digitalization and power electronics on the planning, operation, and development of large power grids. The forum will also provide a high-level platform for collaboration among industry, academia, and research, facilitating in-depth exchange on the role of large power grids in supporting the green and low-carbon energy transition, as well as the key technological pathways involved.

For more information, please visit: https://ifles2026.csee.org.cn/index.html?sessionid=

(Source: CSEE)

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