

# NEWSLETTER

## HEADLINE: Climate, Weather and Water Forum 2026: Early Bird Registration in Full Swing!

The 6th Climate, Weather and Water Forum (CWWF2026) will be held from **July 7–9, 2026** at **Lecture Theatre C, The Hong Kong University of Science and Technology (HKUST)**. The forum is chaired by Prof. Mengqian LU, Director of the Otto Poon Center for Climate Resilience and Sustainability (CCRS) at HKUST, and co-convened by Prof. Jing YANG of Beijing Normal University and Dr. Ping LIANG, Chief Forecasting Expert at the Shanghai Meteorological Service.

CWWF2026 will feature **three major themes**:

**I. Advances in Seamless Prediction** — Focusing on the latest breakthroughs in seamless prediction theory and methods, spanning weather to climate and regional to global scales. Topics include advances in data assimilation, ensemble forecasting, multi-model coupling, and the translation of prediction products into refined services for transportation, agriculture, energy, public health, and other sectors.

**II. AI for Earth** — A signature theme of CWWF, this year's forum extends beyond traditional meteorological forecasting into broader Earth system domains including ocean, hydrology, and ecology. Key topics include large language models, foundation models, data-driven modeling, extreme event detection, multi-source data fusion, and the deep integration of AI with physics-based models.

**III. Disaster Risk Reduction and Sustainable Developments** — A new theme bridging climate science with disaster risk reduction and sustainable development. Discussions will cover the socioeconomic impacts of extreme weather and climate events, the integration of forecast and early warning information into urban planning, infrastructure design, and emergency management, as well as climate adaptation and mitigation strategies aligned with the UN Sustainable Development Goals (SDGs).



CWWF 2026 Poster



Lightning Talk Poster

### SPECIAL SESSION

CWWF2026 introduces a dedicated Lightning Talks session, open to researchers, students, engineers, governments and decision-makers. Participants will deliver a 2-minute presentation combining a poster with a concise overview of their key research findings. Presenters will also have the opportunity to engage with attendees at the poster exhibition area. The forum will present **Best Presentation Awards** across multiple categories. Winners will receive dual official certificates from **CWWF** and **UNESCO SEPRESS Programme**, along with exclusive SEPRESS memorabilia. The SEPRESS Programme is officially recognized by **UNESCO** as a key component of the International Decade of Sciences for Sustainable Development (**IDSSD, 2024–2033**). The judging panel will comprise academicians and leading experts in the relevant fields.

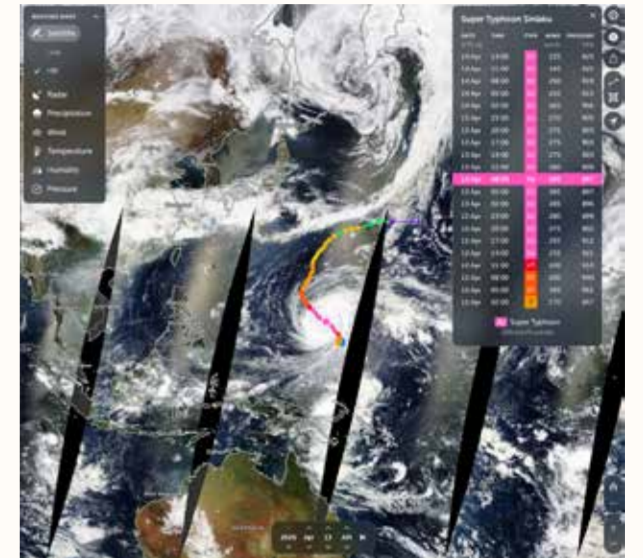
The forum welcomes researchers, young scientists, students, engineers, governments and decision-makers around the world. The conference will be held from July 7–9, 2026. On-site capacity is limited and available on a first-come, first-served basis. **Early bird rate: HKD 1,600 per person (deadline: May 29, 2026); standard rate: HKD 2,000 per person.** Registration closes on July 6, 2026 at 24:00. All fees are non-refundable once paid. A confirmation email will be sent upon successful registration, which must be presented for on-site entry.

**Register here:** <https://event-reg.hkust.edu.hk/hkust-mcp/checkout/321>

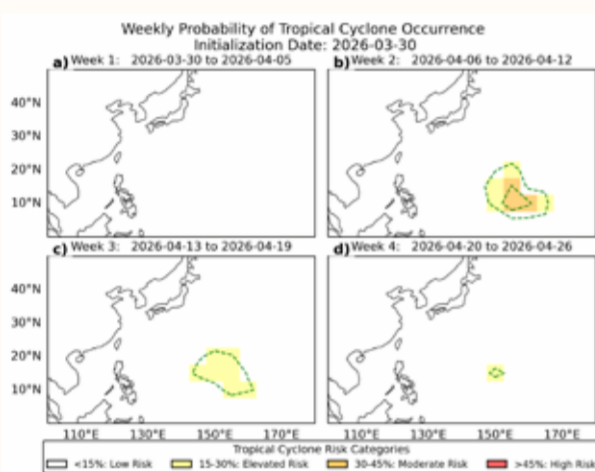
## SEPRESS/HKUST V1 Captures Rare Super Typhoon Sinlaku Three Weeks in Advance

April is generally considered a less active season for typhoons over the western North Pacific. However, in April 2026, Cyclone Sinlaku occurred with a rare Category 5 intensity. IBTrACS observational data confirmed that Sinlaku was one of only a handful of Category 5 typhoons ever recorded so early in the year in the northwestern Pacific Ocean.

Despite this challenging early-season environment, the HKUST V1 model successfully captured the rare Super Typhoon Sinlaku three weeks in advance, demonstrating notable accuracy in both timing and spatial positioning. Initialized on 30 March, the model predicted the typhoon's probability region consistently across Week 2 (April 6–12) and Week 3 (April 13–19). This performance demonstrates the HKUST V1 model's ability to deliver skillful subseasonal predictions even under challenging low-season conditions, an environment where traditional forecasting methods often provide limited lead time.



Typhoon Sinlaku path  
(<https://zoom.earth/storms/sinlaku-2026/>)



Weekly probability of Tropical cyclone occurrence

The operationalization of such subseasonal prediction capability offers practical value for maritime operations, particularly ship routing. Capturing a rare cyclone with a sufficient lead time is the key advantage here. With up to three weeks' advance notice, HKUST V1 provides a dimension-advantage strategy that allows vessels to avoid dangerous cyclone paths, optimize fuel efficiency, and enhance crew safety during what is normally considered a quiet period. This approach bridges the gap between short-term forecasts and seasonal outlooks, turning early warnings into actionable routing decisions even in less active seasons.

## New PNAS Study Reveals How Land Costs Shape China's Solar Technology Choices

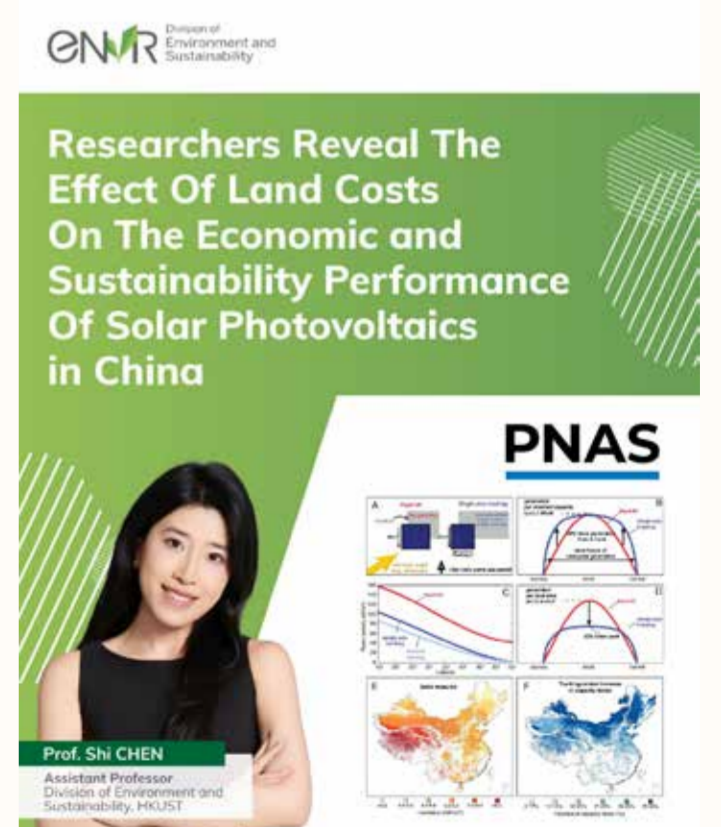
China leads the world in solar PV deployment, yet the solar tracking systems has been adopted at a relatively low speed at just 12%, compared to around 90% in the United States. What explains this stark contrast in technology choices, and what consequences might follow?

Prof. Shi Chen, Assistant Professor of Division of Environment and Sustainability and CCRS member, HKUST, together with scholars from Stanford University, Carnegie Science, and Tsinghua University, investigated how land economics and policy shape renewable technology deployment in China.

Their study, titled "The effect of land costs on the economic and sustainability performance of solar photovoltaics in China", has been published in The Proceedings of the National Academy of Sciences (PNAS).

The study uncovers critical trade-offs between energy yield, land use, and material demand across different tracking technologies. The findings provide new insights to support more balanced, informed, and resilient decarbonization strategies in China and beyond.

Check out the full article here: <https://www.pnas.org/doi/10.1073/pnas.2512930123>



Prof. Shi Chen and her team's latest research on land costs and solar PV deployment in China, published in PNAS.

## HKUST Secures Dual UNESCO Endorsements for Two International Deep-Sea Research Programs



Prof. QIAN Peiyuan (second left), Chair Professor of Ocean Science at HKUST, CCRS member and Program Leader of CliMetS and MOCSI, meets with Dr. WANG Lin of UNESCO (first left) and Dr. Virginie TILOT of the CliMetS International Advisory Committee (first right) to discuss the programs' design and implementation.

The Hong Kong University of Science and Technology (HKUST) has secured official endorsements from UNESCO for two international deep-sea research programs — the Global Climate Impacts of Methane Seeps Program (CliMetS) and the Mysteries of Ocean Cold Seep Interfaces Program (MOCSI) — both co-led by HKUST and the Southern Marine Science and Engineering Guangdong Laboratory (GML).

CliMetS, endorsed under the UN Ocean Decade, brings together over 220 researchers from 138 institutions across 53 countries to establish a global observation network for methane seep emissions, addressing a critical gap in current climate models. Through long-term monitoring of major seep sites across multiple ocean basins, the program will generate essential data to enhance climate forecasting and refine assessments of global warming and climate tipping points. MOCSI, endorsed under the UN Science Decade, focuses on cold seep ecosystems across the Northwest and South Pacific, the western Indian Ocean, and the Atlantic, investigating how organisms adapt to extreme deep-sea conditions and uncovering key biogeochemical cycling mechanisms.

In the coming year, the two programs will launch an international research cruise in the Indian Ocean and a North American regional workshop to co-design research agendas and enhance regional capacity. UNESCO will also host a special session on Chemosynthetic Ecosystems at the Science Decade's Conference in Paris on July 16. These initiatives build on two landmark regional workshops held in Colombia and Kenya last October, which brought together over 110 experts from 11 countries in Latin America and 17 countries in Africa.

Prof. QIAN Peiyuan, Chair Professor of Ocean Science at HKUST, CCRS member and Program Leader of both programs, stated: "The dual endorsements represent not only recognition of our research excellence, but also an affirmation of our commitment to global methane seep research. We aim to join hands with stakeholders worldwide to translate scientific discoveries into concrete contributions to global sustainability."

## CIFI Chairman WU Hai Leads Delegation to Visit HKUST

On April 15, 2026, Mr. WU Hai, Chairman of the China Internet Investment Fund (CIFI), led a delegation to visit HKUST. Organized by the World Sustainable Development Institute (WSDI), the visit featured a roundtable exchange on sustainable development, artificial intelligence, and the low-altitude economy. The delegation included experts from the Chinese Academy of Social Sciences and the China Academy of Cyberspace Studies, along with representatives from companies such as I-KING TEC, Sixents Technology, CloudSky, and Medical Policy and Technology.



Group Photo of Participants. 10th from left: Mr. WU Hai, 8th from right: Prof. LU Mengqian.

HKUST Provost Prof. GUO Yike welcomed the delegation, highlighting the University's leadership in AI research and its commitment to bridging research with real-world applications. Mr. WU Hai praised HKUST's "pragmatic and in-depth approach to sustainable development" and expressed hope for deeper collaboration.

HKUST scholars presented their latest work spanning world sustainable development strategy, low-altitude economy research, generative AI breakthroughs, and physical AI. Company representatives also expressed strong interest in university-industry collaboration in technology R&D, commercialization, and international expansion.

The visit strengthened ties between both sides in technology innovation and industry integration, laying a solid foundation for future cooperation.