



SJTU TODAY

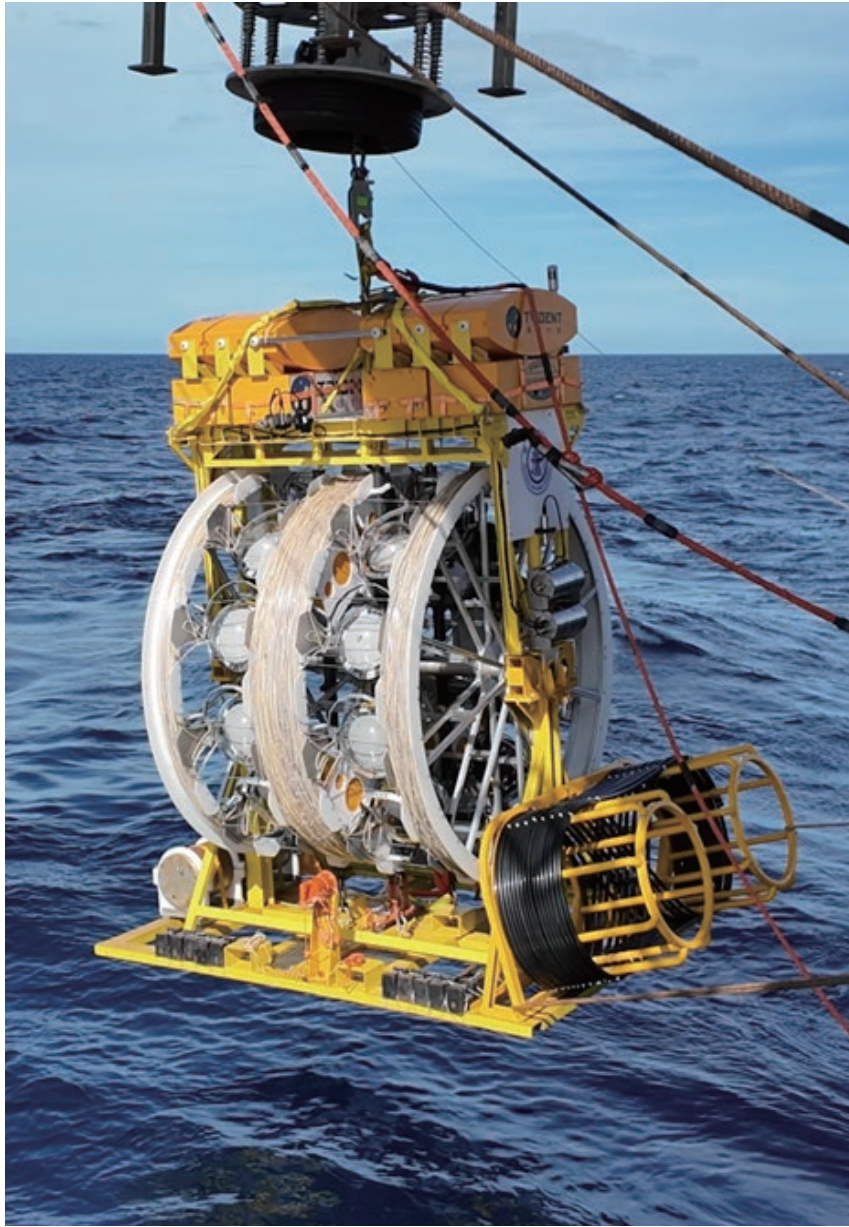
Milestone for China's Deep-Sea Neutrino Detection: SPIDER Deployment System Sea Trial Completed

Recently, the SPIDER (Subsea Precision Instrument Deployer with Elastic Releasing) system, an internationally pioneering deep-sea neutrino detection mooring deployment vehicle independently developed by Shanghai Jiao Tong University, has successfully completed its full-function sea trial. This achievement marks a milestone for China in the key technology of deep-sea neutrino detection, laying a good foundation for the deep-sea engineering construction of the TRIDENT (TRopical DEep-sea Neutrino Telescope).

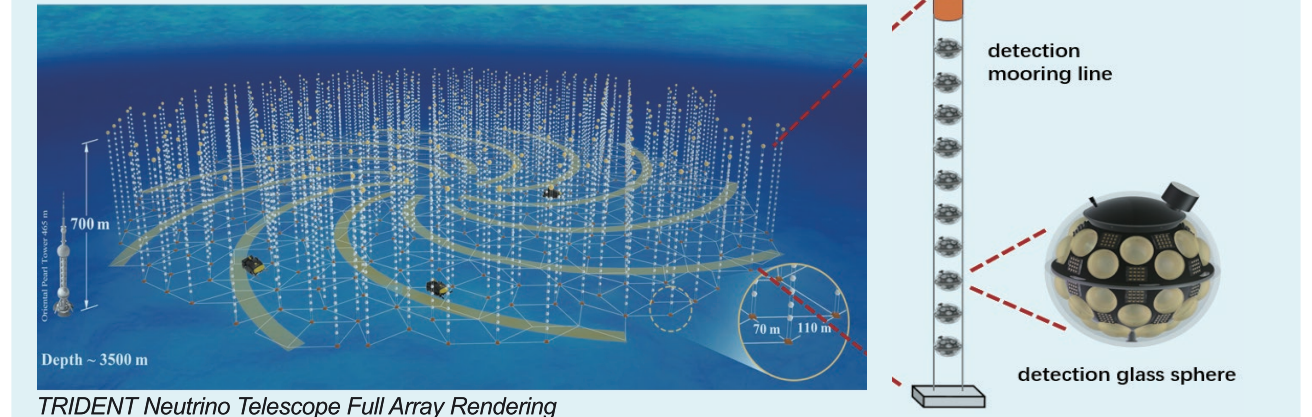
The TRIDENT is a deep-sea neutrino telescope construction initiative launched by Shanghai Jiao Tong University. It aims to detect high-energy neutrinos produced in celestial and atmospheric nuclear reactions, explore the fundamental laws driving extreme cosmic phenomena, promote interdisciplinary research in particle physics, astrophysics, geophysics, and ocean science, and foster original, major scientific discoveries.

The full TRIDENT neutrino telescope array consists of approximately 1,000 neutrino detection mooring lines, forming a cylinder-shaped array with a diameter of about 4 kilometers, planned for deployment on the seafloor at a depth of 3,500 meters. Each mooring line is about 700 meters tall, suspending optical detection modules housed in 43-cm-diameter high-pressure-resistant glass spheres. How to safely and efficiently deploy such a large and precise flexible mooring array in the extreme deep-sea environment has been a major challenge for deep-sea neutrino detection.

Inspired by the continuity and controllability of a spider spinning its silk, the research team proposed a design logic of "integrated assembly — flexible



SPIDER System (Before Water Entry)



deployment — vertical unfurling". This enables the orderly deployment of the 700-meter-long precision neutrino detection mooring in the deep-sea environment, overcoming the great challenge of precisely deploying ultra-long flexible cables in the deep sea. Compared to the "string rolling" scheme adopted by the Mediterranean neutrino detection project KM3NeT, this apparatus was designed from the outset with system scalability in mind. The current device employs a dual-track design accommodating 20 optical modules, possessing good modularity and expandability. It can be conveniently upgraded in the future to hold more detection modules, meeting diverse future needs. Relying on Shanghai Jiao Tong University's large-scale marine testing facilities, the system R&D team, through 8 version iterations and multiple rounds of testing, finally succeeded in developing this specialized underwater equipment.

During this sea trial, the SPIDER system, operating in a 1300-meter-deep sea environment, strictly followed preset procedures and successfully completed the stable deployment of both "light" and

"heavy" payload modes. It sequentially executed a series of difficult maneuvers including near-bottom hovering and ROV-assisted unlocking. The system continuously and stably rotated 90 times within ten minutes, safely releasing 20 photodetection modules and 4 buoyancy modules. All optical modules achieved the orientation required for neutrino detection, fully validating the stability and reliability of the SPIDER system.

In the future, based on the extensive data accumulated from this sea trial, the research team will further optimize the autonomy and intelligence of the SPIDER system, comprehensively enhance its adaptability to complex marine environments, and accelerate the engineering implementation of the TRIDENT. This success demonstrates China's original breakthrough in the fields of deep-sea neutrino detection.

This project received timely support at different R&D stages from various research programs, including the National Key R&D Program of China "Deep-Sea Neutrino Detection Technology" (Grant No. 2023YFC3107400) and the Shang-

hai Basic Research Field Project "Multi-band Neutrino Detection Research" (Grant No. 22JC1410100), ensuring the continuity of the R&D process. Acknowledgement is hereby given.

(Sea Trial Video: https://mp.weixin.qq.com/s/H3_h0IWBWLKEYp3OZ_xiJ-sA)

(By the Trident Collaboration)



SJTU News SJTU WeChat

Editor-in-chief: YU Zhaoyang
Executive Editor: ZHENG Mao
GE Yang
YU Qingling
JIANG Qianqian

SJTU Holds Career Guidance and Exchange Session for International Students

On October 14th, the International Student Service Center of Shanghai Jiao Tong University successfully held a Career Guidance and Exchange Session for international students on the Minhang Campus. The event invited representatives from the Shanghai Zero Bay Venture Investment Co., Ltd., officers from the Exit-Entry Administration Division of the Shanghai Public Security Bureau, distinguished alumni, and corporate representatives. Focusing on career planning and entrepreneurship, it offered practical guidance to help over 100 international students from various departments expand professional perspectives and define clear career paths.

Xu Yang, Manager of the International Cooperation Department at Shanghai Zero Bay Venture Investment Co., Ltd., introduced the Greater Zero Bay Project's positioning,



ecosystem, and internationalization strategy, outlining a clear growth path for international students interested in entrepreneurship. An officer from the Exit-Entry Administration Bureau explained internship and employment procedures for international students

in China, providing key support for their career development.

Alumnus Nagendra Rijal Upadhyaya, who earned bachelor's and master's degrees from SJTU in 2010 and 2013 respectively, shared his entrepreneurship journey in China as COO and COO

of Shanghai Wicresoft Co. Ltd., discussing development challenges and advantages to encourage proactive future planning.

Envision Energy and Wind Information Co., Ltd. introduced their development, talent systems, and 2026 campus recruitment plans. After the session, their HR representatives held one-on-one discussions to address students' individual career questions.

The event concluded successfully amid active engagement. International students noted that alumni sharing and expert guidance gave them a clearer career direction and valuable advice for pursuing development, internships, and employment in China.

(Source: International Student Service Center)

"Encounter Henan, Experience Huaxia" —SJTU International Students Conduct Social Practice in Henan

From June 27th to 30th, seven Baixian Scholars from Japan, Malaysia, Singapore and other countries took a four-day trip in Henan. With the theme of "Encountering Henan Culture, Experiencing Chinese Civilization", the trip focused on Shaolin Kung Fu, the Yellow River and Song Dynasty civilization to deepen their understanding of Henan's history and promote cultural exchanges.

The journey started at Zhengzhou's Shaolin Temple. Its ancient pagodas and brilliant Shaolin Kung Fu performance let students feel the integration of Zen and martial arts.

At the Yellow River Cultural Park, they admired the river's grandeur,

learned about cross-river bridges and the South-to-North Water Diversion Project, and understood the Chinese nation's tenacity.

In Kaifeng, they visited key sites: Henan Museum showed relics reflecting Central Plains culture; Daxiangguo Temple's ginkgo-carved Thousand-Armed Guanyin highlighted Buddhist heritage; Millennium City Park reproduced Song Dynasty Bianjing's prosperity; Kaifeng Prefecture's Bao Zheng stories conveyed justice legacy.

After the trip, Japanese student SARI MINOGUCHI was shocked by the Yellow River Basin's 5,000-year-old civilization and stressed heritage protection. Thai student PAT-



TARAANANPONG PRAPASSOM said the trip deepened his knowledge of Chinese culture and highlighted cultural exchange's value.

The journey inspired students to spread Chinese civilization globally. (Source: International Student Service Center)

The 5th Global Chat over Lunch for Chinese and Foreign Teachers and Students

In the golden days of October, ideas sparked and minds connected. The fifth session of Global Chat over Lunch was successfully held on October 11, 2025 (Saturday) at the Student Center, Minhang Campus. This session invited Dr. Hamza BOUKILLI, mathematics specialist from the Mathematics and Computing Group at the SJTU Paris Elite Institute of Technology, to engage in an in-depth discussion with students from more than ten countries and regions under the theme "Connecting Cultures, Illuminating the Future of AI."

At the beginning of the event, Dr. Hamza shared his experiences growing up in a multicultural environment and talked about his journey of working with Large Language Models (LLMs) since the late 2010s. He emphasized that AI is not merely a technology, but also a new way to understand culture, communication, and creativity.

Ben Brueckner from Germany talked about the challenges of balancing university studies with real-world practice. Dr. Hamza noted that SJTU is an ideal platform for students — from learning Chinese to exploring AI, from conducting research to pursuing entrepreneurship. He highlighted that the university has a strong alumni network and maintains close collaboration with the Xuhui and Minhang district governments, providing students with valuable bridges to connect with the industry.

Peeyakorn Leankattava from

Thailand asked, "Are there any better guidelines for using AI in research?"

In response, Dr. Hamza explained that AI is still in an exploratory stage, and no unified standards have been established yet. He mentioned that instructors can upload their own course databases on Canvas to build a personalized AI teaching assistant, providing tailored support for their classes.

Li-Yang Pan from China shared his reflections from the perspective of academic integrity. He said that the forum gave him a renewed understanding of the role and boundaries of AI in academic research — AI can improve efficiency, but it should never replace human thinking and judgment. He emphasized that verifying AI-generated content and clearly acknowledging AI's involvement in the research process are essential to maintaining academic rigor and honesty. Through this event, he gained a clearer sense of how to use AI responsibly in his future studies and research, ensuring that technology serves as a tool for progress rather than a shortcut.

Event Summary

In a relaxed and friendly lunchtime setting, participants explored the future of AI in education, research, and entrepreneurship from diverse cultural perspectives — truly realizing the spirit of "Connecting Cultures, Illuminating the Future of AI."

(Source: International Student Service Center)

The 2nd International Conference on Carbon Neutrality Successfully Held

From September 6th to 7th, the 2nd International Conference on Carbon Neutrality was successfully held in Shanghai. The conference was hosted by Shanghai Jiao Tong University and the Chinese Society of Engineering Thermophysics, organized by the journal *Carbon Neutrality* (2024 Impact Factor: 12.5, Q1), co-organized by the Asian Union of Thermal Science and Engineering (AUTSE), Shanghai Jiao Tong University Journal Center, China-UK Low Carbon College of Shanghai Jiao Tong University, and School of Mechanical Engineering of Shanghai Jiao Tong University.

The two-day event brought together more than 200 experts and scholars from over ten countries, including China, the UK, Singapore, South Korea, Japan, Australia, and Germany. With more than 170 paper submissions, the conference provided a high-level platform for dialogue on

cutting-edge technologies and policies in the field of carbon neutrality.

At the opening ceremony on September 6, distinguished guests in attendance included: Prof. Xinhe Bao, Academician of the Chinese Academy of Sciences, Former President of the University of Science and Technology of China (USTC), Fudan University; Prof. Hongguang Jin, Academician of the Chinese Academy of Sciences, Honorary President of the Chinese Society of Engineering Thermophysics, Honorary Editor-in-Chief of Carbon Neutrality; Prof. Peixue Jiang, Academician of the Chinese Academy of Sciences, Vice President of Tsinghua University; Deputy Director Minglin Zhu, Shanghai Municipal Development & Reform Commission; Prof. Xing Zhang from Tsinghua University; Prof. Yong Tae Kang, Academician of the National Academy of Engineering of Korea, Korea University; Prof. Margaret Graham, the Univer-

sity of Edinburgh; Qibin Liu, Institute of Engineering Thermophysics, CAS. The opening ceremony was chaired by Prof. Changying Zhao, Founding Editor-in-Chief of *Carbon Neutrality* and Chair Professor at Shanghai Jiao Tong University. Prof. Hao Hu, Assistant to the President of Shanghai Jiao Tong University, delivered a welcome speech on behalf of SJTU.

Over two days, the conference featured six plenary lectures, ten keynote lectures, 37 invited talks, 95 oral presentations, and 19 posters. The Roundtable of Top Journal Editors was specially set up. Chaired by Prof. Zhao, it brought together senior editors from leading journals to discuss the future of scholarly publishing and academic frontiers in carbon neutrality research. The event also presented the Excellent Young Scholar Award for *Carbon Neutrality*, 2022-2023 Highly Cited Paper Award of *Carbon Neutrality*, Outstanding Youth Editorial Board



Member Award of Carbon Neutrality, and Best Paper Award.

As an international academic event, the 2nd International Conference on Carbon Neutrality success-

fully showcased the latest scientific and technological advances in carbon neutrality, fostered interdisciplinary integration, and strengthened international cooperation. The conference

has further contributed to advancing worldwide efforts toward a sustainable, low-carbon future.

(By ZHANG Yiwen, LI Bowen,WU Xiaoxin)

SJTU International Students Participate in Youth Agri-Heritage Event for Protection Paths

From August 11th to 13th, the "Youth Action on Green Agri-Heritage: Global Cultural Symbiosis" international youth event kicked off in Shanghai. Hosted by the FAO Representation in China, the World Food Forum (China), and China Internet Information Center, with support from FAO, Pinduoduo, and the China Agricultural Science and Education Foundation, the event gathered youth delegates from 13 countries, experts, and media. Over ten SJTU international students from eight countries joined the opening ceremony to share insights on agricultural heritage preservation, with Researcher Min Qingwen emphasizing youth's key role in GIAHS initiatives.

Through roundtables, workshops, and field trips, delegates explored



innovative preservation approaches. Japanese director Ryo Takeuchi led a multicultural team in filming a documentary, while SJTU students collaborated with global peers on youth-driven

solutions. In Jinshan, they researched traditional peach cultivation, exchanged with local growers, and experienced stone-milled soy milk production. They also visited fishing villages, tasted yel-

low croaker noodles, and joined a cultural sharing session to deepen understanding of agricultural heritage revitalization.

The cross-border dialogue helped delegates realize that agricultural heritage conservation requires both tradition preservation and future innovation. SJTU students and international peers jointly explored new protection methods, demonstrating youth's unique value. The event, covered by People's Daily and other media, built an international exchange platform and highlighted agricultural heritage's significance for sustainable development.

(Source: International Student Service Center)

SJTU International Students Visit China International Industry Fair to Experience Intelligent Manufacturing

On September 25th, during the 25th China International Industry Fair (CIIF), the International Student Service Center of Shanghai Jiao Tong University organized a special visit. Thirty international students from 13 countries and regions, including Pakistan, Malaysia, Russia, and Indonesia, entered the National Exhibition and Convention Center to explore the innovative vitality of China's industrial technology.

With the theme of "New Industrial Quality, Boundless Intelligent Manufacturing", this year's CIIF showcased the latest breakthroughs in global high-end, intelligent, and green manufacturing. The organizers warmly welcomed the group and briefly introduced the core exhibition areas, painting a macro picture of



China's industrial development.

Guided by staff, the students focused on the university exhibition zone and the "Industry + AI" section. In SJTU's independent

hall, 28 scientific and technological achievements—such as foreign monopoly-breaking low-dew-point dehumidification technology and aerospace-enabled testing systems—im-

pressed them deeply. In the "Industry + AI" area, they were fascinated by automated production lines, intelligent robots, and digital twin technology, actively observing, recording, and communicating with exhibition staff.

This visit allowed students to step out of the classroom and gain a direct understanding of China's industrial technology development and trends, broadening their academic horizons. After the visit, all returned safely to Minhang Campus. Many students said the experience gave them a more vivid understanding of China's "intelligent manufacturing" and expressed eagerness to participate in related exchanges and cooperation in the future.

(Source: International Student Service Center)

International Students Walk into Jinshan and Encounter Fengjing Ancient Town

On October 15th, 14 international students from Shanghai Jiao Tong University, representing 11 countries including Singapore, Sweden, Nigeria, and Australia, visited Fengjing Ancient Town in Jinshan District. They got up close to the unique charm of traditional Chinese culture, admired the essence of Jiangnan water town culture, and witnessed the new look of rural revitalization under China's modernization drive.

Guided by a docent, the students toured the Xie Tianxi Art Museum and the Jiangnan Water Town Wedding Customs Museum. At the art museum, they admired the artist's representative works and learned about the legacy of the Xie family of scholars. Fengjing, a cradle of talents, has nurtured three top scholars, 56 jinshi, and 122 provincial scholars, whose names



witness its long cultural heritage.

At the wedding customs museum, they explored the entire process of Jiangnan water town weddings. The

annual "Wu and Yue Marriage Ceremony" of Fengjing vividly shows the ancient charm of local weddings with distinct regional characteristics.

Finally, the group visited the century-old Wang Huaiting Residence, where folk artist Chen Huifang taught them the painting techniques of "Jinshan Farmer's Painting," an intangible cultural heritage. The students experienced the whole process from outlining to coloring, while tasting local delicacies such as eyebrow dumplings and top scholar cakes.

This cultural journey deepened the international students' understanding of traditional Chinese art, folk culture and rural revitalization, letting them appreciate the richness of Chinese heritage and the vitality of Chinese modernization.

(Source: International Student Service Center)

CFRI's 2025 MRS International Risk Conference Concludes with Global Impact

The 2025 MRS International Risk Conference, jointly organized by *China Finance Review International* (CFRI), Suffolk University, and the Modern Risk Society, successfully concluded in Boston, July 24-26, attracting 443 submissions from 37 countries and over 300 attendees. It spotlighted AI, climate, green finance, and systemic risk, fostering global, cross-disciplinary dialogue.

Nobel laureate Daron Acemoglu keynoted "Reclaiming Humanity in the Age of AI" on July 25; July 26 MIT-CFRI forum featured Harvard's Peter Tufano on "AI and Climate Risk." Six CFRI-co-sponsored Research Excellence Awards were presented.

During the conference, CFRI held its 2025 EAB meeting with 15 members. Executive Editor Professor Wenfeng Wu expressed gratitude for their support, and discussions covered key performance indicators,

topic planning, review processes, and international outreach, leading to consensus on future directions. Professor Wu emphasized that CFRI will continue serving as a bridge between East and West, promoting interdisciplinary cooperation.

CFRI is a flagship academic journal founded by Antai College of Economics and Management, Shanghai Jiao Tong University. It is indexed in over 20 databases, including Web of Science, Scopus, and recognized in ABDC, ABS, FMS, and AML rankings. In 2024, it achieved a CiteScore of 16.3 (5th in Finance) and an impact factor of 7.6 (8th in Business, Finance), classified as Q1 TOP by the Chinese Academy of Sciences.

(Source:Shanghai Jiao Tong University Journal Center, Editorial Office of China Finance Review International)



2025 SJTU International Freshmen Orientation Activity Successfully Held

On September 22th, Shanghai Jiao Tong University hosted the 2025 International Freshman Orientation at Lecture Hall A100 of the Student Center on Minhang Campus. Chaired by Zhou Xiyun from the International Student Service Center, the hybrid offline-online event guided global new students on campus safety, psychological adjustment, accommodation insurance, visa affairs, and campus activities.

Building a Strong Safety Foundation

Xiao Guanheng, Deputy Director of the Security Section, warned against telecom frauds like fake embassy or delivery compensation scams, urging no money transfers and prompt reporting. He also reminded students to follow traffic rules via campus accident cases.

Psychological Adjustment and Cross-Cultural Adaptation

Wu Xinyi from the Career Center noted language and communication differences may cause "culture shock," advising an open mind, empathetic communication, and active campus participa-

tion to build cross-cultural friendships.

Accommodation and Insurance

Zhang Xiaozhen explained housing and insurance policies: on-campus housing has strict management; off-campus students must register within 24 hours. He emphasized safety checks and emergency contacts, and outlined insurance procedures.

Visa Matters

Wan Yunyun and Zhang Yifan detailed X1/X2 visa processes, answered passport update and system error questions, and reminded official consultations to avoid scams.

Campus Cross-Cultural Activities

Elizabeth Pan introduced the service team and resources, encouraging cross-cultural activities and following official accounts for career info.

At the end, teachers answered questions, volunteers showed the Student Center. Students praised the event for practical guidance, boosting confidence. The orientation ended warmly.

(Source: International Student Service Center)

