A Global Workshop in Shanghai for discussing a New Magnetic Paradigm

The workshop's scientific program brought together some of the world's foremost authorities on unconventional magnetism: Libor Šmejkal from the Max Planck Institute opened new perspectives on altermagnetism's fundamental symmetries and their experimental manifestations, while Paolo Radaelli of Oxford University presented his innovative tensorial framework for understanding these phenomena. Sang-Wook Cheong from Rutgers University shared his insights into kinetomagnetism and the profound implications of PT symmetry breaking in magnetic systems. Throughout the sessions, experts engaged in vibrant discussions that traversed the full spectrum of contemporary research - from advanced magnetic symmetry analysis and spin group theory to emergent transport phenomena in altermagnets. The dialogue extended to cutting-edge computational approaches for quantum materials design and novel topological phases in unconventional magnetic systems, reflecting the workshop's position at the forefront of condensed matter physics.

Among the other speakers, the workshop gathered distinguished researchers from around the world, featuring Congjun Wu (Westlake University, China) and Xiangang Wan (Nanjing University, China) discussing cutting-edge developments in quantum materials. Cheng Song (Tsinghua University, China) presented experimental breakthroughs, while Kaiyou Wang (Institute of Semiconductor, CAS, China) shared insights on semiconductor applications. International perspectives came from Hikaru Watanabe (University of Tokyo, Japan) and Hyun-Woo Lee (Pohang University of Science and Technology, South Korea).

The Chinese research community showed strong representation with Zhi-Da Song (Peking University), Chang Liu (Southern University of Science and Technology), and Cheng-Cheng Liu (Beijing Institute of Technology). Dawei Shen (National Synchrotron Radiation Laboratory, China)

and Ding-Fu Shao (Institute of Solid-State Physics, CAS, China) contributed specialized expertise, while Paolo Barone (CNR-SPIN, Italy) represented European research excellence.

The global collaboration included Junwei Liu (Hong Kong University of Science and Technology), Mengli Hu (Leibniz Institute for Solid State and Materials Research, Germany), and Mathias Kläui (Johannes Gutenberg University Mainz, Germany). Additional Chinese perspectives came from Shanshan Wang (Southeast University), Yang Gao (University of Science and Technology of China), Tong Zhou (Eastern Institute of Technology), Yu-Jun Zhao (South China University of Technology), and Zheng-Xin Liu (Renmin University of China).

The international scope was further enriched by Rafael Gonzalez Hernandez (Universidad del Norte, Colombia) and Juan José Palacios Burgos (Universidad Autónoma de Madrid, Spain). The educational program benefited from lectures by Juan Manuel Perez-Mato (Universidad del País Vasco, Spain), Qihang Liu (Southern University of Science and Technology, China), and Xiaobing Chen (Southern University of Science and Technology, China).

One of the highlights was the strong involvement of early-career researchers and students from across the globe, who embraced the opportunity to interact directly with leading scientists in a dynamic and inclusive setting. The strong interest towards the event was confirmed by the large number of participants and online attendees.

The event was supported by major institutions including the National Natural Science Foundation of China and the Italian Ministry of University and Research through the PRIN2022 program. This bilateral cooperation underscores the role of science as a bridge between nations — and between generations of researchers.

This workshop-school hybrid reflects a dual commitment: to push the boundaries of altermagnetism while nurturing the next generation of scientists. The presence of so many brilliant minds—from Oxford to Tokyo, from theoretical pioneers to experimental innovators—underscores the power of international networks to face with grand challenges. News ideas and collaborations will benefit from this international meeting.

For more details: https://conferences.koushare.com/CNRSHUInternationalWorkshopSchool

Link to the photos: https://www.yipai360.com/photoliveh5/home/?orderId=202506221142567585

Workshop


Welcome to SHU
2025
交磁体和磁对称研讨会
Workshop on Altermagnets and School on Magnetic Symmetry
Magnetic Space Groups I


2025
交磁体和磁对称研讨会
Workshop on Altermagnets and School on Magnetic Symmetry


Hikaru Watanabe
University of Tokyo
2025

School


上海大学
Shanghai University
南方科技大学
2025
交磁体和磁对称研讨会
Workshop on Altermagnets and School on Magnetic Symmetry
23-26 June
Shanghai, China
Organizers:
Shanghai University
CNR-SPIN
SUS Tech
IUCr