FY 2025 Annual Report

Unit Name

Electronic and Quantum Magnetism Unit

Professor Yejun Feng

Research Personnel

Arun Sharma, Research Unit Technician

Tanushri Das Sir, Research Unit Technician

Margarita Dronova, PhD Student

Sandeep Vijayan, PhD Student

Nino Kitoshvili, Research Intern

Minh Tu Phan, Research Intern

Ming Yue Tan, Research Intern

Raghav Sharma, Research Intern

Scholarly Contributions and Creative Productions (by Faculty)

Journal Article

1. Vijayan, S.; Suffit, S.; Cooper, S. E.; Feng, Y.
   Nanoscale Symmetry Protection of the Reciprocal Acoustoelectric Effect. Scientific Reports 2026, 16, 7637.
2. Yan, J.; Singh, D. J.; Saparov, B.; Cao, H.; Feng, Y.; Cheng, J.; Uwatoko, Y.; Mandrus, D.
   Structural Transition and Possible Pressure-Induced Superconductivity in a Suboxide. Phys. Rev. Mater. 2025, 9, 124801.
3. Feng, Y.; Wang, Y.; Rosenbaum, T. F.; Littlewood, P. B.; Chen, H.
   Fermi Surface Origin of the Low-Temperature Magnetoresistance Anomaly. Matter 2025, 8, 102105.

Seminars

1. Feng, Y.
   Quantum Materials Initiative Colloquium, Neutron Science Directorate, Oak Ridge National Laboratory, *Experimental Origin of the Low-Temperature Magnetoresistance Anomaly*, Oak Ridge, Tennessee, Oct. 14th. 2025.
2. Feng, Y.
   Department of Physics, City University of Hong Kong, *Quantum-Transport Origin of the Low-Temperature Magnetoresistance Anomaly*, Hong Kong, Nov. 24th. 2025.

Scholarly Contributions (by Unit Members)

Name of Unit Member	Type	Title	Outlet	Publisher	Year Pub
Margarita Dronova	Poster Presentation at Conference	Controlled evolutions between antiferromagnetism and spin glass	The 3rd Nanoelastronics Workshop, OIST	The 3rd Nanoelastronics Workshop	15-Oct-25

Name of Unit Member	Type	Title	Outlet	Publisher	Year Pub
Sandeep Vijayan	Presentation at Conference	Substrate symmetry driven non-reciprocal acoustoelectric effect in SAW devices	APS Global Physics Summit 2026, Denver CO, USA	American Physical Society	20-Mar-26
Margarita Dronova	Seminars	Controlled evolutions between antiferromagnetism and spin glass	Department of Physics, City University of Hong Kong, Kowloon, Hong Kong	City University of Hong Kong	25-Nov-25

Outreach Activities [For Unit Members Only]

Term 1 2025	Margarita Dronova, SEED Program: Kanagawa Odawara High School vistited OIST [Fiscal Year: 2025-10-08]
Term 3 2025	Margarita Dronova, SEED Program: Yamawaki Gakuen High School visited OIST [Fiscal Year: 2025-05-09]