

# INSTITUTE OF ADVANCED STUDIES

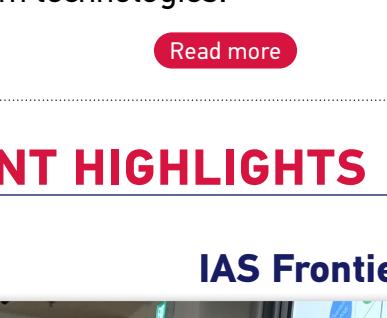
NANYANG TECHNOLOGICAL UNIVERSITY

Catalyse high-impact research | Transcend disciplinary boundaries | Expand knowledge & education frontiers

## FEATURED ARTICLES

### Bringing Quantum Mechanics Into The Macroscopic World

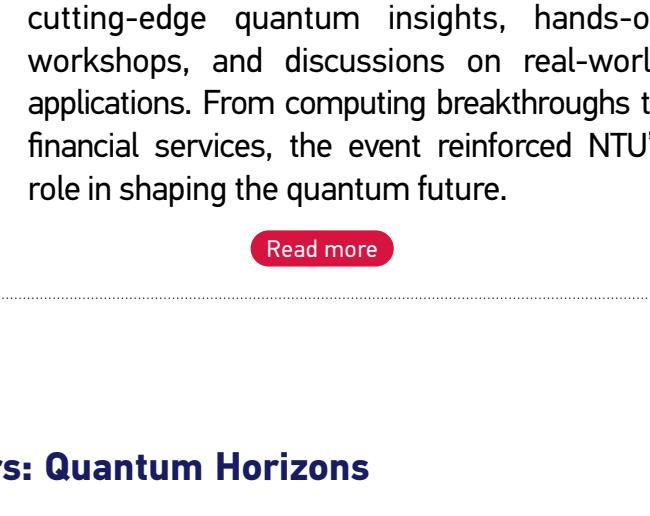
#### 2025 Nobel Prize in Physics



Professors John Clarke, Michel Devoret, and John Martinis were awarded the prestigious prize for demonstrating how quantum behaviour can be realised at the human scale, bridging the quantum and classical worlds and enabling advances in superconducting quantum technologies.

[Read more](#)

### Quantum Industry Day 2025

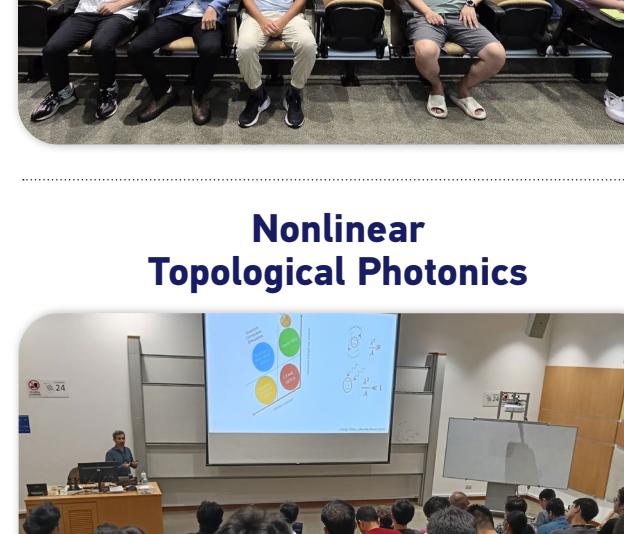


NTU's fourth Quantum Industry Day united leaders from academia, industry, and finance, showcasing cutting-edge quantum insights, hands-on workshops, and discussions on real-world applications. From computing breakthroughs to financial services, the event reinforced NTU's role in shaping the quantum future.

[Read more](#)

## EVENT HIGHLIGHTS

### IAS Frontiers Seminars: Quantum Horizons

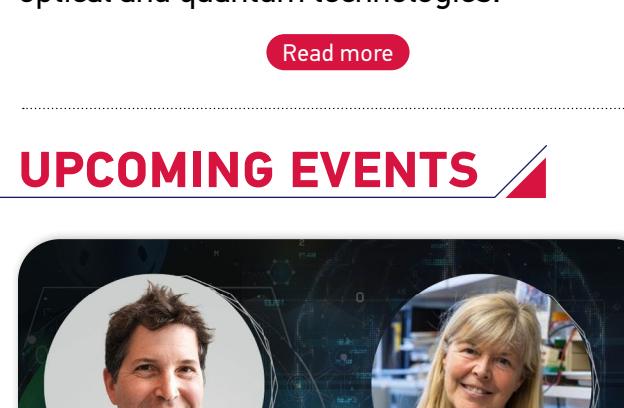


This seminar series showcases advances in quantum phenomena. Prof Mohammad Hafezi (University of Maryland) discussed light-matter interactions in 2D materials, while Prof Alberto Morpurgo (University of Geneva) highlighted tunable magnetic and electronic properties of atomically thin materials for quantum and spintronic technologies.

[Read more](#)

### IAS STEM Graduate Colloquia Jointly Organised with the Graduate Students' Clubs

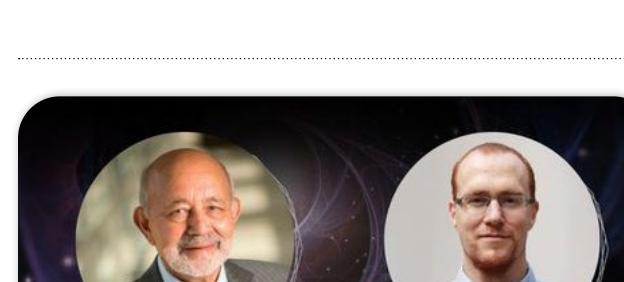
#### Degradation and Stabilisation of Colloidal Perovskite Nanocrystals



Prof Qingsen Zeng (Seoul National University) presented breakthroughs in stabilising perovskite nanocrystals, revealing double-shelled structures with exceptional efficiency, stability and colour purity for next-generation display technologies.

[Read more](#)

#### Nonlinear Topological Photonics



Prof Mohammad Hafezi (University of Maryland) highlighted how topology and nonlinearity enable robust light transport, disorder-immune quantum states, and topological frequency combs for scalable optical and quantum technologies.

[Read more](#)

#### A New Generation of Ionic Gated Transistors



Prof Alberto Morpurgo (University of Geneva) shared insights into ionic-gated transistors, showing how extreme electric fields turn them into powerful probes of electronic structure and emergent phenomena in low-dimensional materials.

[Read more](#)

## UPCOMING EVENTS



### IAS@NTU Lee Kong Chian Distinguished Professor Public Lecture

6 January 2026, SHHK Auditorium

"Design of New Protein Functions Using Deep Learning" by Prof David Baker

"AI-Driven Foundational Regenerative Medicine" by Prof Hannele Ruohola-Baker

[Register now](#)



### IAS@NTU Lee Kong Chian Distinguished Professor Public Lecture

7 January 2026, SHHK Auditorium

"Enabling Green and Renewable Energy Solutions with Power Semiconductor Technology" by Prof Bantval Jayant Baliga

"Can We Build an AI Climate Scientist?" by Prof Torsten Hoefer

[Register now](#)

[Read more](#)

[Read more](#)