

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

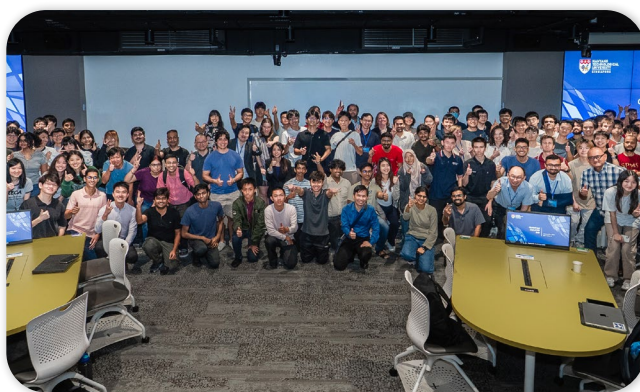
2025 Nobel Prize in Physics



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](#)

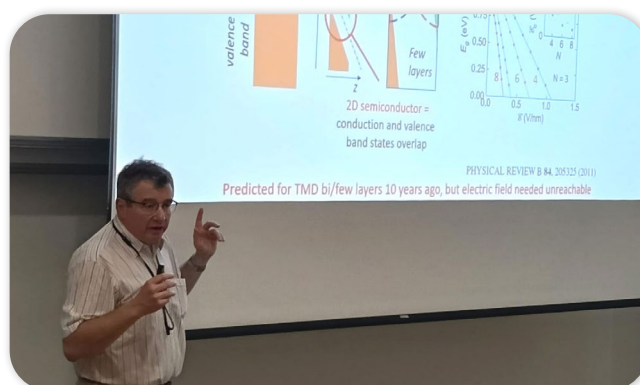
Nonlinear Topological Photonics



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



Prof David Baker
Nobel Prize in Chemistry 2024

Prof Hannele Ruohola-Baker
Institute for Stem Cell and Regenerative Medicine

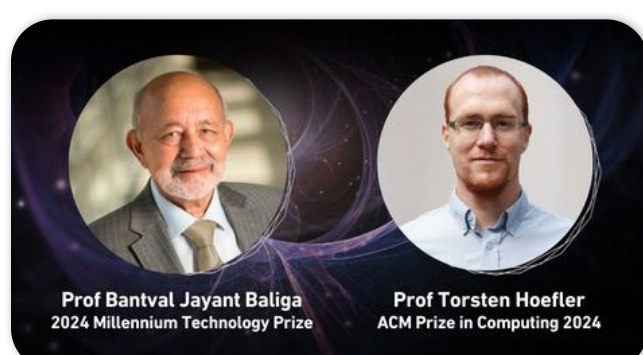
IAS@NTU Lee Kong Chian Distinguished Professor Public Lecture

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](#)



Prof Bantval Jayant Baliga
2024 Millennium Technology Prize

Prof Torsten Hoefler
ACM Prize in Computing 2024

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 Hoefler

[Register now](#)

IAS Frontiers Conference on Artificial Intelligence

IAS Frontiers Conference on AI, 2nd Edition

20 January 2026, Tan Chin Tuan Lecture Theatre

Conference theme "Intelligent Systems at the Frontier: Autonomy, Alignment, and the Next Generation of AI"

[Register now](#)

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