

INSTITUTE OF ADVANCED STUDIES

NANYANG TECHNOLOGICAL UNIVERSITY

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

FEATURED ARTICLES

Spectroscopy of Exoplanetary Atmosphere

2024 Kavli Prize
in Astrophysics



The prestigious biennial prize was awarded to Prof David Charbonneau (Harvard) and Prof Sara Seager (MIT) for their pioneering work in measuring the atmospheres of exoplanets, which could potentially lead to the detection of signs of life on these distant worlds.

[Read more](#)

Pre-University Science Educators engaged in Learning Journey at NTU



Eighty-five educators from junior colleges and secondary schools visited NTU's College of Science, learning about the teaching methods, vibrant environment, and practical applications of theoretical knowledge, as well as NTU's dedication to hands-on, research-intensive education.

[Read more](#)

NTU Science Discovery Camp 2024



The inaugural Discovery Camp on Chemistry, Physics, and Mathematics gave pre-university students an immersive look into NTU's science programs and university life. Combining academic rigour with social activities, the camp helped them gather extensive scientific knowledge, spark their curiosity, and build new friendships.

[Read more](#)

Raffles Institution's Learning Journey at NTU CCEB



Nineteen students from Raffles Institution visited NTU's School of Chemistry, Chemical Engineering, and Biotechnology (CCEB) research lab focusing on food sustainability. The memorable learning experience showcased NTU's insightful research and cutting-edge environment, along with guidance on educational and career choices.

[Read more](#)

EVENT HIGHLIGHTS

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



Clinically Informed Polymers: From Ultra-low Dose RNA Vaccines to Hydrogels for Wound Care by Prof Mark Grinstaff (Boston University)



Prof Grinstaff shared his insightful research at the intersection of chemistry, biomedical engineering, and clinical applications. He highlighted three key projects: developing self-amplifying RNA for ultra-low dose vaccines, creating hydrogels as adhesives for eye wounds, and advancing imaging and treatment strategies for osteoarthritis.

[Read more](#)

Bottom Interface Engineering for High Performance Perovskite Optoelectronic Devices by Prof Chen Shi (University of Macau)



Prof Chen presented the development of perovskite optoelectronic devices, focusing on interface engineering and performance optimisation. He highlighted his groundbreaking research, introducing three strategies: dual ion passivation, graphene coverage, and substrate modification.

[Read more](#)

UPCOMING EVENTS

IAS Frontiers Conference on Genome Engineering

13 to 15 November 2024

Celebrating the revolutionary CRISPR-Cas system, this conference explores its transformative impact on biotechnology and biomedical science, from its roots in microbial immunity to its 2020 Nobel Prize winning applications in genome editing. We invite all interested students and early career researchers to participate in the poster presentations. Selected abstracts will also have the opportunity for lightning talks and win poster prizes.

[Register now](#)



Math for AI: Can Mathematics provide a Solid Foundation for AI? by Assoc Prof Kelin Xia (SPMS NTU)

15 Aug 2024, 2pm SPMS LT2

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For enquiries, email us at iasevents@ntu.edu.sg

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