

INSTITUTE OF ADVANCED STUDIES

NANYANG
TECHNOLOGICAL
UNIVERSITY

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

FEATURED ARTICLES

Generating the Briefest Flashes of Light that Illuminate Electron Motion in Atoms and Molecules

2023 Nobel Prize in Physics



The 2023 Nobel Prize in Physics was awarded to Profs Pierre Agostini, Ferenc Krausz, and Anne L'Huillier for pioneering experimental methods generating attosecond light pulses, enabling exceptional investigations into electron dynamics in matter.

[Read more](#)

Winning Programmatic Grants - A Fireside Chat with Prof Dame Lynn Gladden

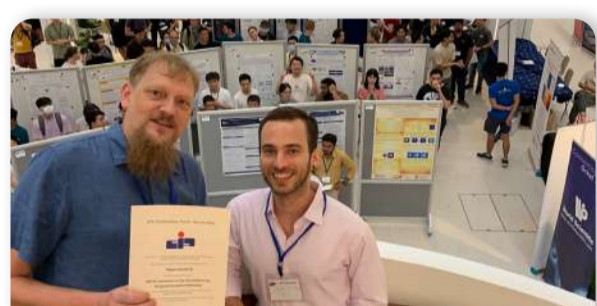


Prof Gladden (Cambridge University) shared her wealth of experience as the former Executive Chair of UK's Engineering and Physical Sciences Research Council and provided insights into the essential elements for success in securing programmatic grants, and pitfalls that should be sidestepped.

[Read more](#)

EVENT HIGHLIGHTS

Institute of Physics Singapore (IPS) Meeting 2023 | 27 to 29 September 2023



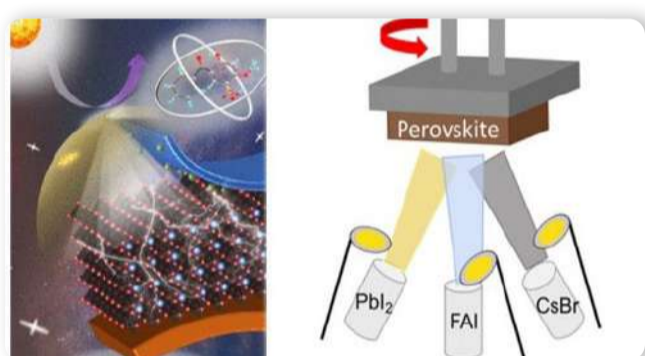
The IPS Meeting 2023 brought together over 500 researchers, placing a strong emphasis on collaboration, knowledge exchange, and networking. The event featured engaging keynote talks, poster presentations, and opportunities for networking with exhibitors.

[Read more](#)

IAS Discovery Science Seminars and STEM Graduate Colloquia Jointly Organised with the Graduate Students' Clubs



Stable and Efficient Perovskite Solar Cells by Prof Mohammad Nazeeruddin (École Polytechnique Fédérale de Lausanne) 4 October 2023



Prof Nazeeruddin's webinar discussed an array of topics such as the compositional engineering of perovskite layer, pragmatic overview of cost structures, and practical aspects like the dynamics of establishing solar farms etc.

[Read more](#)

Making Electronics Sustainable: Solving the Dichotomy by Assoc Prof Shweta Agarwala (Aarhus University) 12 October 2023



Assoc Prof Agarwala shared her research on developing novel biodegradable, biocompatible, and bioresorbable electronics materials which also help address sustainability issues like waste treatment of electronics waste.

[Read more](#)

Can 3D Printing Print Cells in Our Body? by Prof Paulo Bartolo (Singapore Centre for 3D Printing) 2 November 2023



Prof Bartolo discussed utilising 3D printing for customisable biomedical devices and combining it with rotational electrospinning to create dual-scale scaffolds for bone tissue regeneration, and fabricating solutions for bone cancer treatment etc.

[Read more](#)

Anecdotes and Science: Musings on My Career Path by Prof Vidya Madhavan (University of Illinois) 7 November 2023



Prof Madhavan shared her academic experiences, offering valuable career insights to students. She emphasised that knowledge pursuit extends beyond lab discoveries to encompass personal growth, resilience, and meaningful connections in the scientific community.

[Read more](#)

New Catalysts, New Reactions and New Functional Materials by Prof Hou Zhaomin (RIKEN) 21 November 2023



Prof Hou presented his research results on organometallic catalysts and the development of a self-healing polymer, sharing several videos demonstrating its capability to reattach itself post-cutting or damage.

[Read more](#)

Ultrafast Optical Imaging and Micro/Nano-Laser by Prof Liu Xinfeng (Chinese Academy of Sciences) and Assoc Prof Zhang Qing (Peking University) 29 November 2023



Prof Liu discussed micro/nanoscale ultrafast spectroscopy imaging for studying carrier mobility and spectral characteristics in nanoscale semiconductor materials, while Assoc Prof Zhang emphasised the role of micro/nano-lasers in developing compact, low-energy photonic devices.

[Read more](#)

UPCOMING EVENTS

Quantum Industry Day 8 December 2023



Explore the cutting edge of quantum technologies and the future of this dynamic industry, where researchers and industry leaders come together to showcase the potential of quantum computing.

[Register now](#)

Quantum Resources Workshop 11 to 15 December 2023



The workshop addresses broad aspects of quantum resource theories and recent developments in the field with invited talks by experts as well as contributed talks and poster sessions etc.

[Register now](#)

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