24th Australian Institute of Physics Congress

Sunday, 11 December 2022 - Friday, 16 December 2022

Scientific Programme

AIP Congress

Tracks for The Australian Institute of Physics Congress

AIP: Astronomy

AIP: Group for Astroparticle Physics

AIP: Atomic and Molecular Physics

AIP: Biomedical and Medical Physics

AIP: Computational and Mathematical Physics

AIP: Condensed Matter, Materials and Surface Physics

AIP: Education

AIP: Environmental Physics

AIP: Geophysics

AIP: Meteorology, Climate Change and Oceanography

AIP: Nuclear and Particle Physics

AIP: Plasma Science

AIP: Quantum Science and Technology

AIP: Relativity and Gravitation

AIP: Renewable Energy

AIP: Solar Terrestrial and Space Physics

AIP: Synchrotron Science

AIP: Theoretical and Mathematical

ANZCOP

Tracks for Australian and New Zealand Conference on Optics and Photonics

ANZCOP: Astrophotonics

ANZCOP: Atom optics

ANZCOP: Biophotonics

ANZCOP: Fibre & communications

ANZCOP: Lasers

ANZCOP: Metaoptics and plasmonics

ANZCOP: Microscopy, spectroscopy and imaging

ANZCOP: Nanophotonics, metaoptics and plasmonics

ANZCOP: Nonlinear optics and photonics

ANZCOP: Novel materials

ANZCOP: Optical sensors

ANZCOP: Optoacoustics

ANZCOP: Photonic integration and fabrication

ANZCOP: Quantum optics

ANZCOP: THz

WSOF

Tracks for 7th International Workshop on Specialty Optical Fibres and Their Applications

WSOF: Advances and new developments in specialty fibres

WSOF: Photonic crystal, microstructured, and hollow core fibers

WSOF: Fibre lasers

WSOF: Novel materials

WSOF: Nonlinear optics

WSOF: Fibre sensors

WSOF: Novel manufacturing: 3D printing, postprocessing, coatings

WSOF: Advanced analysis: wavefront shaping, machine learning

WSOF: Industrial applications and commercialisation

COMMAD

Tracks for the Conference on Optoelectronlc and Microelectronic Materials and Devices

COMMAD: Semiconductor materials, devices, and technologies

COMMAD: Emerging materials: 2D, oxide, organic, and perovskite materials

COMMAD: Semiconductor manufacturing technologies

COMMAD: Advanced materials growth and synthesis

COMMAD: Materials and device characterisations

COMMAD: Nano/micro-fabrication and processing

COMMAD: Advanced computational and machine learning methods in photonics, nanoelectronics, and devices

COMMAD: Flexible electronics, nonlinear optical materials, and wearable technologies

COMMAD: Photonic integrated circuits, semiconductor lasers, LEDs, photodetectors, and modulators

COMMAD: Topological and photonic crystal lasers

COMMAD: Solar cells, thermoelectricity, fuel cells, power electronics, and green-energy devices

COMMAD: Biomedical integrated circuits and implantable devices

COMMAD: Quantum computing and circuits

COMMAD: Nanoelectronic and nanophotonics

PQS2022

PQS: Precision and Quantum Sensing Workshop

PLENARY

Plenary

This track is reserved for invited plenary speakers

Focused Sessions

The culture of Physics and Research

Metaphotonics and Metasurfaces

Unveiling emergent physics of novel functional materials with neutron scattering

Australia’s future in gravitational wave physics and astrophysics

Time Crystals

National vision for nuclear science and applications

Strong interaction dynamics and the pursuit of fundamental symmetries

Quantum Biotechnology

AIP session in honor of Tony Klein