Session Program

7–11 Dec 2026



26th Australian Institute of Physics Congress and the Australian and New Zealand Conference on Optics and Photonics

AIP NUPP: Nuclear & Particle Physics Theory

The University of Sydney , Belinda Hutchinson Building
Abercrombie St & Codrington St NSW 2008

Monday 7 December

15:45

AIP NUPP: Nuclear & Particle Physics Theory

Session |
Location: The University of Sydney , Belinda Hutchinson Building, Abercrombie St & Codrington St NSW 2008 |
Convener: Cedric Simenel

15:45–16:00 **From quarks to atomic nuclei and neutron stars**

Speaker
Anthony Thomas

16:00–16:15
A wave packet time-correlation approach to nuclear collisions: Towards improved fusion modelling

Speaker
Aditya Singh Tejas

16:15–16:30
Long-range dispersion parity violation and Its impact on atomic weak charges

Speaker
Igor Samsonov

16:30–16:45
Exploring non-perturbative fermion-photon interactions through the Schwinger-Dyson approach.

Speaker
Connor Carrington

16:45–17:00
Topological origin of fermion composite condensates and emergent particle states in the Standard Model, General Relativity and Weyl semimetals

Speaker
Prof. Archil Kobakhidze

17:00–17:15 **Symmetries and Amplitudes in the Randall-Sundrum Model**

Speaker
Joshua Gill

17:15