



Contribution ID: 930

Type: **not specified**

Teaching and Learning Modern Physics: Quantum Physics and / Relativity

Thursday 15 December 2022 14:00 (1h 30m)

Format: 20 minutes workshops by the university professors

Description: Modern physics requires an adequate use of models and a deep conceptual understanding of the underlying abstract ideas. The Physics curriculum in high schools and introductory university courses contains, at best, a passing reference to 20th Century physics. How have teachers and students adapted their conceptual frameworks towards incorporating the highly non-classical issues of modern physics? Do they appreciate the topics of interest to contemporary physicists, the contribution of physics to modern thought or the connection between the Physics they learn and modern technology? Examples include the Laser, Quantum technologies, LED, Large Hadron Collider, gravitational waves, How can we stimulate greater interest and encourage our students to pursue their studies of physics further?

Presenters:

1. Professor Peter Veitch - Leader of the University of Adelaide node of the ARC Centre of Excellence for Gravitational Wave Discovery (OzGrav), The University of Adelaide

Topic of Presentation: Gravitational Waves

2. Professor Halina Rubinsztein-Dunlop –ARC CoE for Engineered Quantum Systems, School of Mathematics and Physics, The University of Queensland.

Topic of Presentation: Upcoming Quantum Technologies

3. Prof Kishan Dholakia - ARC Laureate Fellow at the Institute for Photonics and Advanced Sensing (IPAS) - The University of Adelaide Topic of Presentation: Quantum Sensing

https://www.sasta.asn.au/blog/2022/11/15/24th_australian_institute_of_physics_congress

Session Classification: SASTA