<table>
<thead>
<tr>
<th>Poster Numbers</th>
<th>International Conference on the Physics of Semiconductors 2022</th>
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<td>27 - 30 June 2022 International Convention Centre Sydney</td>
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**MONDAY 27 JUNE & TUESDAY 28 JUNE 2022**

**2D materials beyond graphene**

1. 830: Ultrafast carrier dynamics in van der Waals Bi2Se3 and VSe2/BI2Se3 heterostructure - Prof Sunghun Lee
2. 836: Manybody enhanced spin-valley effects in monolayer MoS2 - Dr Andreas Stier
3. 876: Tuning the performance of MoS2 field effect transistors with ALD encapsulation - Miss Teja Potocnik
4. 916: Ellipsometry study on Temperature Dependent Critical Points of monolayer WSe2 - Prof Young Dong Kim

**Carbon nanotubes and graphene**

5. 998: Magnetic field control of the Franck-Condon coupling of few-electron quantum states - Dr Andreas K. Hüttel

**Charge, valley and spin qubits**

6. 404: Readout Of Silicon Spin Qubits Beyond The Singlet-triplet Blockade - Miss Amanda Seedhouse
7. 442: Pulsed Exchange Operation of Two-Qubit Gate in Silicon MOS Quantum Dots - Dr Wee Han Lim
8. 581: Atomic Precision Engineering Of Spin Qubits In Isotopically Pure Silicon - Mr A F M Saiful Haque Misha

**Material growth, structural properties and characterization, phonons**

9. 992: Optimization of the superconductor/semiconductor coupling in InAs/Al hybrid 2DEGs - Dr Filip Krizek
10. 708: Effects of TiN Process Conditions on Ferroelectricity of TiN/Un-doped HfO2/TiN MFM Capacitor - Prof Ho-Young Cha

**Electron devices and applications**

11. 279: 3D fabrication of Si-P devices using STM for scalable fault tolerant quantum computing - Mr Mitchell Kiczynski
13. 628: Enhanced electrostatic coupling between gate-defined silicon quantum dots towards integration with peripheral circuits - Dr Gou Shinkai

**Low dimensional systems (Quantum Hall, transport theory, 1D, 2D)**

14. 821: Electric-field control of conductance in metal quantum point contacts - Prof Kenji Shibata
15. 290: Multichannel effects in Transverse Magnetic Focusing - Mr Seokyeong Lee
16. 670: Achieving Balance Of Valley Occupancy In Narrow AlAs Quantum Wells - Dr Alina Khsameeva
17. 900: Electronic Fabry-Perot Interferometer in Open Confocal Cavity - Mr Hwanchul Jung
18. 991: Nearly vanishing tunnel resistance and unusual high mobility in electron bilayers in zero magnetic field - Mr Christian Marty

**Perovskites**

20. 893: Time-resolved Kerr rotation of CH3NH3PbI3 perovskite nanoplatelets. - Mr Michael Kempf
21. 923: Cesium Gold-based Halide Perovskites: Phase control and Investigating Temperature-dependent Structural and Optical properties - Miss Bhawna Bhawna

**Quantum optics, nanophotonics**

22. 752: Telecom wavelength quantum dots and photonic structures for quantum communication - Dr Mohamed Benyoucef
23. 968: A new analytical approach based on the resonant states, evanescent wave and kp-model for light propagation in birefringent optical cavities - Mr Przemyslaw Oliwa

**Wide-bandgap semiconductors (GaN, SiC, Ga2O3)**

24. 20: Electrical Characterization Of Gallium Nitride Thin Films Synthesized By Electrochemical Deposition - Mr Abdulraoof Idriss Ali
25. 656: Erbium and defect luminescence in silicon carbide nano-pillars - Dr Brett Johnson
26. 955: Understanding the evolution of carbon interstitial related point defects in silicon carbide after thermal injection - Dr Marianne Batthen