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 for registration and details.

# 2021-22 Science Faculty Postgraduate Research Day

**14 DEC 2021**  
**0915 – 1600 · LSK LT6**



**Impacts of Changes in Land Use, Climate, and Anthropogenic Emissions on Global Air Quality by the Mid-21<sup>st</sup> Century Following the Shared Socioeconomic Pathways**  
 BHATTARAI Hemraj (*Earth & Atmospheric Sciences*)



**Beating the Saturation Phenomenon of Stochastic Gradient Descent**  
 ZHOU Zehui (*Mathematics*)



**Enormous Water Input in the Southern Mariana Subduction Zone: Seismic Evidence Derived from Ocean Bottom Seismographic Experiments**  
 CHEN Han (*Earth & Atmospheric Sciences*)



**Development of Advanced Photodynamic Molecular Beacons with Multiple Controls for Targeted Photodynamic Therapy**  
 TAM Ka Bo (*Chemistry*)



**Testing Variance Change under Varying Mean Structure**  
 LEUNG Cheuk Wai Dominic (*Risk Management Science*)



**Gold-in-copper at Low \*CO Coverage Enables Efficient Electromethanation of CO<sub>2</sub>**  
 XIE Yi (*Chemistry*)



**scAMACE: Model-Based Approach to the Joint Analysis of Single-Cell Data on Chromatin Accessibility, Gene Expression and Methylation**  
 WANGWU Jiaxuan (*Statistics*)



**Evolutionary Landscape of Non-canonical RNA G-Quadruplexes: Hidden Side of a Versatile Structural Element**  
 CHOW Yui Ching (*Cell & Molecular Biology*)



**A New Analytical Lens Focusing on Interstellar Turbulence**  
 YEUNG Cheung Hei (*Physics*)



**Characterization of Extracellular Vesicles (EVs) and EXPO in Plant**  
 GAO Jiayang (*Cell & Molecular Biology*)



**Three-Loop Braiding Statistics for Fermionic Topological Phases**  
 ZHOU Jingren (*Physics*)



**Priming-Induced Alterations in Histone Modifications Modulate Transcriptional Responses in Soybean under Salt Stress**  
 YUNG Wai Shing (*Molecular Biotechnology*)



**Peterson Isomorphism and Seidel Representations**  
 CHOW Chi Hong (*Mathematics*)



**The Neuronal Adaptor FE65 Potentiates ARF6-Mediated Neurite Outgrowth by the Activation of ARNO**  
 ZHAI Yuqi (*Cell & Molecular Biology*)