

## Participants of Overseas Research Fellowship (ORF) Scheme

\*Excellence in Poster Presentation

#Best Presenter

### 2018-19

Name	Curriculum	Year	Project Title	Supervisor
Chan Kai Hei	BSc (4)	2	HERA power spectrum analysis project	Dr Philip Bull, School of Physics and Astronomy, Queen Mary University of London
Fu Yaoying*	BSc (4)	3	Distribution of colors in Gallai colorings	Prof Dezső Miklós, Budapest Semesters in Mathematics
Li Jiahui	BSc (4)	3	Active Water Droplet: A cascade of dynamic behaviors responding to AC electric field	Prof Thomas Russell, Material Sciences Division, Lawrence Berkeley National Laboratory
McLeod Wendy Finella Cabututan	BSc (4)	3	Evolutionary implications of intraspecific acoustic communication in Pomacanthidae	Dr Timothy C. Tricas, Department of Biology, University of Hawaii at Manoa
Ng Hin Ching	BSc (4)	3	Reappraisal of Late Triassic dinosaur fossils from Lesotho at the UCL Grant Museum of Zoology	Prof Paul Upchurch, Department of Earth Sciences, University College London
Tan Zhi Qing	BSc (4)	3	Lifestyle Management in Polycystic Ovary Syndrome (PCOS): Health Professional Systems Mapping	Prof Lisa Moran & Dr Siew Lim, Monash Centre for Health Research and Implementation, Monash University
Taranjit Singh	BSc (4)	3	Analysis of Microlensing events towards the Galactic Centre of Milky Way	Prof Philippe Jetzer, Department of Physics, University of Zurich
Tsang Kin Ming	BSc (4)	3	Quad fitter performance in identifying direction in SNO+	Dr Jeff Tseng, Department of Physics, The University of Oxford
Vu Ka Hei	BSc (4)	3	Optimising the DNA extraction process from the edible bird's nests	Dr Frank Rheindt, Department of Biological Science, National University of Singapore
Wang Rebecca Si-Ning*	BSc (4)	3	Green Roofs vs Ground-level Gardens: Bioacoustics Monitoring of Insect Visitation Rates in Leeds, England	Dr Christopher Hassall, School of Biology, University of Leeds
Wong Chin Leong*	BSc (4)	3	Assembly of interlocked molecules by dynamic combinatorial approach	Dr G. Dan Pantos, Department of Chemistry, University of Bath
Wong Hong Tsun#	BSc (4)	3	A Reconstruction Formalism of $f(T)$ Modified Gravity to Probe the Dynamics of the Late-time Acceleration in the Universe	Prof Yi-Fu Cai, Department of Astronomy, University of Science and Technology of China
Xu Wan*	BSc (4)	3	Investigating the Expression of Microglia and Alzheimer's Disease Markers in IGF1 KO Mice	Dr Dong Feng Chen, Department of Ophthalmology, Harvard Medical School
Yang Zening	BSc (4)	2	Investigation on Copper catalyzed Suzuki-Miyaura coupling: the effect of ligands and results	Dr Rob Davies, Department of Chemistry, Imperial College London
Yeung Tik Tsun	BSc (4)	3	Nuclear mass measurement by multi-reflection time-of-flight mass spectrograph (MRTOF-MS)	Dr Shunji Nishimura, Nishina Center for Accelerator-Based Science, RIKEN, Japan

Yin Kexin	BSc (4)	2	Hydrogenation of lignin models with Ru/C catalyst targeting hydrodemethoxylation products	Prof George Britovsek, Department of Chemistry, Imperial College London
Zhao Qingqing	BSc (4)	3	Computational Bounds for Nanophotonic Design	Prof Owen Miller, Department of Applied Physics, Yale University
Zhong Sophia Shek Wa	BSc (4)	3	Development of a NanoString nCounter Vantage 3D platform-based complementary diagnostic test for precision medicine in pediatric cancers	Dr Cynthia Hawkins, Department of Laboratory Medicine & Pathobiology, The Hospital for Sick Children
Zhou Tian-yi	BSc (4)	3	Tensor Methods in Statistics	Prof Ming Yuan, Department of Statistics , Columbia University

### 2017-18

<b>Name</b>	<b>Curriculum</b>	<b>Year</b>	<b>Project Title</b>	<b>Supervisor</b>
Cao Weihao	BSc(4)	3	Fabrication of magnetic tunneling junction and its theoretical interpretation	Dr Xiaodong Xu, Department of Physics, The University of Washington
Chan Kam Shan	BSc(4)	3	Investigating Epigenetic regulation of CD4 T cell differentiation and function	Prof Colby Zaph, Department of Biochemistry and Molecular Biology, Monash University
Chong Pooi Seong	BSc(4)	3	Energy Calibration for the SNO+ Detector	Prof Jeff Tseng, Department of Physics, The University of Oxford
Chung Suet Wah Sheena	BSc(4)	2	Investigating the Anthropogenic Threats at Staging Sites of Shorebirds Along the East Asian-Australasian Flyway	Prof Theunis Piersma, Department of Coastal Systems, Royal Netherlands Institute for Sea Research (NIOZ)
Fan Kwok Lung	BSc(4)	3	Using machine learning techniques for Gamma/Hadron separation in HAWC	Prof Jordan Goodman, Department of Physics, The University of Maryland
Ho Pok Man	BSc(4)	4	Who is the Mastermind — Host Microbiome VS Hologenome	Prof Allen G Rodrigo, Research School of Biology, The Australian National University
Hong Seungmin	BSc(4)	2	Photodynamic therapy using photosensitizer-encapsulated PEG-PLA block copolymer micelle	Dr Heebeom Koo, Department of Medical Lifescience, The Catholic University of Korea
Lai Lexiao	BSc(4)	3	Time-Dependent Surveillance-Evasion Game	Prof Alexander Vladimirovsky, Department of Mathematics, Cornell University
Niu Xueyan*	BSc(4)	3	Mathieu's Differential Equation and Its Generalizations to the Sierpinski Gasket	Prof Robert S. Strichartz, Department of Mathematics, Cornell University
Peng Lianghui	BSc(4)	3	Automation of searching for two-dimensional crystals	Dr Ziliang Ye, Department of Physics and Astronomy, The University of British Columbia
Tang Jincheng	BSc(4)	3	Properties of Generating sets of finite groups	Prof Keith Dennis, Department of Mathematics, Cornell University
Tsang To	BSc(4)	3	Developing and testing small RNA therapeutics for treatment of cancer	Prof John J Rossi, Department of Molecular and Cellular Biology, Beckman Research Institute of the City of Hope
Yang Xinwu	BSc(4)	4	Lorentz Estimates for the Multi-linear Averages on Curves	Dr Betsy Stovall, Department of Mathematics, University of Wisconsin-Madison

Zhang Shaowu	BSc(4)	2	A Study on the Source of Meteorites by the Integration Method	Prof Jack Wisdom, Department of Earth, Atmospheric and Planetary Sciences, Massachusetts Institute of Technology
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### **2016-17**

<b>Name</b>	<b>Curriculum</b>	<b>Year</b>	<b>Project Title</b>	<b>Supervisor</b>
Chan Hoi Wing	BSc(4)	2	Reduction of GAT-3 activity in IP3R2 KO mice	Dr Qiang Chang, Department of Medical Genetics and Neurology, University of Waisman-Madison
Chan Tsz Chung	BSc(4)	4	Site faithfulness of shorebirds fuelling in China	Prof Theunis Piersma, Royal Netherlands Institute for Sea Research (NIOZ)
Chen Yuming	BSc(4)	3	Analysis on Hybrid Fractals	Prof Robert S Strichartz, Department of Mathematics, Cornell University
Gao Rui	BSc(4)	3	Genetically Encoded Dual-functional Photocrosslinker to Map Protein-protein Interactions	Prof Peng Chen, Department of Chemical Biology, Peking University
Gu Haotian	BSc(4)	3	Weyl Asymptotics and Spectral Analysis on Hybrid Fractals	Prof Robert S Strichartz, Department of Mathematics, Cornell University
Lee Shu-yu	BSc(4)	3	Examination of BDT performance with new variables in used for Higgs boson searching	Dr Junjie Zhu, Department of Physics, University of Michigan
Liang Lixing	BSc(4)	3	Tracking the Global Economy with a Dynamic General Equilibrium Model	Prof Samuel Kortum, Department of Economics, Yale University
Ng Ka Wai Patrick*	BSc(4)	3	Search for Heavy Higgs Bosons at ATLAS Using Boosted Decision Tree Discriminant Trained with Heavy Higgs Invariant Mass	Dr Junjie Zhu, Department of Physics, University of Michigan
Qian Yikun	BSc(4)	3	Bayesian methods for occupancy models in ecology	Dr Fang Liu, Department of Applied & Computational Mathematics & Statistics, University of Notre Dame
Sun Jiashuo	BSc(4)	3	Emotion Recognition Using Multimodal Deep Learning and Transfer Learning	Prof Bao-Liang Lu, Department of Computer Science and Engineering, Shanghai Jiao Tong University
Tang Tsz Yeung	BSc(4)	4	Geomorphology of collapse structures on Mars	Dr J. Bruce H. Shyu, PhD Caltech, Department of Geosciences, National Taiwan University
Wang Liuwei	BSc(4)	2	Changes in mRNA splicing in brain tissues of rhesus macaques exposed to inflammation in utero	Prof Daniel H. Geschwind, School of Medicine, The University of California, Los Angeles (UCLA)
Zhu Danlei	BSc(4)	3	Information Theoretic Approach to Reconstruct Neural Network Connectivity	Prof David Cai, Department of Mathematics and Neural Science, Courant Institution of Mathematical Sciences
Zhu Zhiyuan	BSc(4)	3	Study of The Dynamics and Excited-State Properties of Pt(II) Dimer via Ultrafast Spectroscopy	Prof Lin X. Chen, Department of Chemistry, Northwestern University

**2015-16**

<b>Name</b>	<b>Curriculum</b>	<b>Year</b>	<b>Project Title</b>	<b>Supervisor</b>
Dai Wei	BSc(4)	4	Using the More Air- and Water-stable Organozinc Reagents – Zinc Pivalates – in Negishi Cross-Coupling Reactions	Dr Julian Knight, School of Chemistry, Newcastle University
Ding Anyang	BSc(4)	2	Search for the heavy neutral Higgs bosons produced in association with bottom quarks and decaying into $t\bar{t}$ in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector	Prof Aurelio Juste, Experimental Division, Institut de Fisica d'Altes Energies (IFAE)
Ho Julian Xi Wei	BSc(4)	4	Identification of short hairpin RNAs with highest knockdown efficiencies for target genes of X	Prof Patrick C H Hsieh, Institute of Biomedical Sciences, Academia Sinica
Li Shuangping*	BSc(4)	3	Analysis on Fractals - Restrictions and Sobolev Spaces on Fractals	Prof Robert S. Strichartz, Department of Mathematics, Cornell University
Ma Wai Sum	BSc(4)	3	The beak of the giant Chinese dinosaur Gigantoraptor erlianensis (Theropoda: Oviraptorosauria)	Prof Xu Xing, Department of Paleoichthyology and Paleoherpptology, Institute of Vertebrate Paleontology and Paleoanthropology, Chinese Academy of Sciences
Man Pui Hei Marcus*	BSc(4)	2	Medial prefrontal cortex stimulation enhances antidepressant and neuroplasticity effects in rat animal model	Dr Ajai Vyas, Department of Molecular and Cell Biology, Nanyang Technological University
Wong Thomas Hin Fung	BSc(4)	3	Synthesis of Complex, Polycyclic Structure via Himerb Cycloadditions	Prof Chris Vanderwal, Department of Chemistry, University of California, Irvine
Wong Wing Yan*	BSc(4)	3	Monte Carlo Event Generation of $t\bar{t}H \rightarrow t\bar{t}b\bar{b}$ in 2-HDM for Heavy Higgs Search at the ATLAS Experiment at the LHC	Dr Junjie Zhu, Department of Physics, University of Michigan
Wu Kuang-yu	BSc(4)	3	Mixture properties of the Fokker-Planck equation	Dr Kung-Chien Wu, Department of Mathematics, National Cheng Kung University
Yau Hei Tung	BSc(4)	3	Synthesis and Photophysical study of bis(dipyrrinato) Zn(II) complex	Dr Fabio Cucinotta, School of Chemistry, Newcastle University
Yue Kun	BSc(4)	3	Investigation of Functional Connectivity of Brain Image under Resting State	Prof Jie Peng, Department of Statistics, University of California, Davis
Zhang Zhiqian	BSc(4)	3	Investigating the role of HERVH in pluripotency maintenance of human embryonic stem cells	Dr Lin He, Department of Molecular and Cell Biology, University of California, Berkeley

**2014-15**

<b>Name</b>	<b>Curriculum</b>	<b>Year</b>	<b>Project Title</b>	<b>Supervisor</b>
Chua Wing Ho	BSc(4)	3	Role of MAP4K3 towards mTOR pathway regulation	Prof Albert R La Spada, Department of Pediatrics, University of California, San Diego
Gallardo Gabriel Emmanuel Calulut*#	BSc(4)	3	Measuring electron charge misidentification rate for SUSY analysis at ATLAS using tag-and-probe	Prof Junjie Zhu, Department of Physics, University of Michigan
Liu Shengxuan	BSc(4)	2	Synthesis and Property Study of 2D Topological Insulator — (Bi <sub>1-x</sub> Sbx) <sub>2</sub> Te <sub>3</sub>	Prof Xi Chen, Department of Physics, Tsinghua University
Liu Yangdongling	BSc(4)	3	Fabrication of Nanomaterials Incorporating Lanthanides Using Covalent Organic Frameworks as Templates	Prof John Arnold, Department of Chemistry, University of California, Berkeley; Dr Stefan Minasian, Chemical Sciences Division, Lawrence Berkeley National Laboratory
Peng Fengjiao	BSc(4)	3	Video Temporal Alignment Using Signal Synchronizing Methods - A Comparison between Dynamic Time Warping and Belief Propagation	Prof Frédo Durand, Department of Electrical Engineering and Computer Science, Massachusetts Institute of Technology
Shum Wing Yee Winnie	BSc(4)	3	Polymerization of phosphorescent tellurophenes for energy-efficient lighting	Prof Eric Rivard, Department of Chemistry, University of Alberta
Wang Qinan	BSc(4)	3	Chandra Observations of Eight Sources Discovered by INTEGRAL	Dr John Tomsick, Space Sciences Laboratory, UC Berkeley
Wang Zhongmin	BSc(4)	3	Shutting down human cytomegalovirus latent infection by use of CRISPR/Cas9 technology	Prof Fenyong Liu, School of Public Health, University of California Berkeley
Wen Boya	BSc(4)	3	k-Forms on Products of Graphs and Fractals	Prof Robert S. Strichartz, Department of Mathematics, Cornell University
Wong Yuk Lun	BSc(4)	3	The role of Sox9 in the inhibition of chondrocyte hypertrophy	Prof Rosa A. Serra, Department of Cell, Developmental and Integrative Biology, University of Alabama, Birmingham
Xiong Lingyun	BSc(4)	3	Characterization of oncofetal factor Sall4 in DNA damage response during hepatocellular carcinoma tumorigenesis and progression	Prof Yang Xu, Division of Biological Sciences, University of California, San Diego
Yang Luona*	BSc(3)	3	On the Convergence Analysis of Staleness Synchronous - Parallel Deterministic Gradient Method	Prof Eric Xing, Machine Learning Department, Carnegie Mellon University
Zhang Zhe	BSc(4)	3	Study of GATA6 Expression in Polarized Bone-Marrow-Derived Macrophages	Prof Ke Shuai, Department of Biological Chemistry, University of California, Los Angeles

**2013-14**

Name	Curriculum	Year	Project Title	Supervisor
Chan Ming Yan	BSc(3)	2	Quantifying diversity of aerosol populations across the US using long-term data from the aerodyne aerosol mass spectrometer	Professor Nicole Riemer, University of Illinois at Urbana-Champaign
Lou Shing Bong	BSc(4)	2	Flow Chemistry as a Discovery Tool for the Generation/Translocation/Reaction of Diazo Compounds	Professor Steven V. Ley FRS, University of Cambridge
Wang Wenyuan*#	BSc(3)	2	Implementing Quantum Fingerprinting Protocol with Error Correction Codes Based on Random Toeplitz Matrices	Professor Hoi Kwong Lo, University of Toronto
Tsoi Yan Wing	BSc(4)	2	The process and components involved in the thickening of fruit juice	Dr Timothy Nicholson, The University of Queensland

**2012-13**

Name	Curriculum	Year	Project Title	Supervisor
Chan Saria Sze Wai	BSc(3)	2	Hypoxia and Thrombosis-associated Cancer Progression	Prof Randall Johnson, University of Cambridge
Lee Jonghan Peter*	BSc(3)	2	Heparin Mimicking Polymers for Stabilizing basic Fibroblast Growth Factor	Prof Heather D. Maynard, University of California
Liang Ruochen*	BSc(3)	2	New Scheme for Numerical Solution to BVP	Prof John Strain, University of California
Luo Jie	BSc(3)	2	Photometric Observation of PSR J1311-3430 With BVIT	Prof Roger W. Romani, Stanford University
Yang Shihao*	BSc(ActuarSc)(3)	2	Detection of Asset Bubbles in Real Time: Some Empirical Results	Prof Philip E Protter, Columbia University
Yuan Huaiping	BSc(3)	2	Protein Kinase B mediated effect of amino acid deprivation on de novo purine synthesis	Prof Gerry R. Boss, University of California, San Diego

**2011-12**

Name	Curriculum	Year	Project Title	Supervisor
Fan Lok Yan	BSc(3)	2	Molecular characterization of staphylococcus aureus isolates from Guangdong	Dr K Zhang, University of Calgary
Gao Wenyu	BSc(3)	2	Application of pricing exchange options by data from Apple and Microsoft companies	Prof S Rao Jammalamadaka, University of California, Santa Barbara
Lam Chi Chung	BSc(3)	2	Discovery of puzzling structures in a giant elliptical galaxy	Dr Y Ohyama, Institute of Astronomy and Astrophysics, Academia Sinica (ASIAA)
Li Shengchao	BSc(3)	2	Slow control system development for barium-tagging in xenon	Prof L Yang, University of Illinois

Lin Tsen-yuan	BSc(3)	2	Resolving properties of synchrotron relativistic jet with x-ray polarization signature	Prof K W Wu, University College London
Regan Charistine	BSc(3)	1	Development of a formula for a body fat reducing functional food	Dr C F Chau, National Chung Hsing University
Song Yifan	BSc(3)	2	Tracker-based seeding of photon conversions in CMS detector	Dr Giacomo Sguazzoni, CERN- European Organization for Nuclear Research
Tang Yunfan	BSc(ActuarSc)(3)	2	GPGPU correlation analysis of massive Hi-C data	Dr Neva Cherniavsky, Broad Institute of MIT and Harvard
Xu Wanting	BSc(3)	2	Differential expression analysis for a mouse p53KO microarray dataset	Prof T P Speed, University of California, Kerkeley

### **2010-11**

<b>Name</b>	<b>Curriculum</b>	<b>Year</b>	<b>Project Title</b>	<b>Supervisor</b>
He Peng	BSc(3)	2	Explore the functions of histone modifications and methylations	Prof S E Jacobsen, University of California, Los Angeles
Leung Man Him	BSc(3)	2	Investigation of thiamine biosynthesis in Salmonella enterica	Dr Diana Down, University of Wisconsin-Madison
Shi Yuan	BSc(3)	2	Principal Modes of Variability in the Tropics from 9-Year AMSU Data	Prof Y L Yung, California Institute of Technology
Tian You	BSc(ActuarSc)(3)	2	MST-Clustering method for ratemaking	Dr M Ludkovski, University of California, Santa Barbara
Tsang Man Yin	BSc(3)	2	Design, construction, and testing a new sulphur hexafluoride (SF6) injector using a membrane contactor	Prof J F Clark, University of California, Santa Barbara
Tsang Timothy Wing-kai	BSc(3)	2	Identification of shrimp tropomyosin (sT)mimotope sequence used in mimotope ?DNA anaphylaxis vaccine for shrimp allergy	Dr P S C Leung, University of California, Davis

**2009-10**

<b>Name</b>	<b>Curriculum</b>	<b>Year</b>	<b>Project Title</b>	<b>Supervisor</b>
Guo Jun	BSc(ActuarSc)(3)	2	Parameter Estimation of a Statistical Criminal Behavior Model	Professor George Mohler, Department of Mathematics, University of California, Los Angeles
Li Xinyu*	BSc(3)	1	Large-Scale Cosmic Magnetic Field	Professor Kinwah Wu, Mullard Space Science Laboratory, University College London
Jiang Qinqin	BSc(3)	2	Quantification of Autorepression System in E.coli system	Professor Terence Hwa, Department of Physics, Physics & Center for Theoretical Biological Physics, University of California, San Diego
Fu Zhongzheng	BSc(3)	2	Voltage Clamp Fluorometry Study of Human Proton Channel	Professor Ehud Isacoff, Department of Molecular and Cell Biology, University of California, Berkeley
Zhong Xingxin	BSc(3)	2	Geometric Realization of Hurwitz Group	Professor Robert E Greene, Department of Mathematics, University of California, Los Angeles
You Can	BSc(3)	2	Study of Level 1 Trigger Upgrade	Professor Albert De Roeck, Physics Department, The European Organization for Nuclear Research

**2008-09**

<b>Name</b>	<b>Curriculum</b>	<b>Year</b>	<b>Project Title</b>	<b>Supervisor</b>
Wu Siqi	BSc(3)	1	Threshold Stochastic Regression, with Application to Modeling Reservoir Effects on River Nitrogen-Nitrate	Professor K S Chan, Department of Statistics and Actuarial Science Univeristy of Iowa
Lin Kanhui	BSc(3)	2	The Effect of Particle Size and Fluids Viscosity on Particle-Laden Thin-Film Flows	Professor N Murisic, Department of Mathematics Univeristy of California, Los Angeles
Dong Sijia	BSc(3)	2	Density Functional Theory Study of Group 9 Metallocorroles	Professor H B Gray, Department of Chemistry California Institute of Technology
Chan Yuet Ngo	BSc(3)	2	Cell Adhesion and actin dynamics: The Role of Arp2/3 in Spermatogenesis	Professor C Y Cheng, Center for Biomedical Research Population Council, Rockefeller University
Wong Cheuk Ki Sybil*#	BSc(3)	2	Mapping of Binding Sites for eIF4E in the Tumour Suppressor Protein LIMD1	Dr T V Sharp, School of Biomedical Science University of Nottingham
Cao Chang	BSc(3)	3	Comparison of Microbial Quality and Bioactive Constituents in Green Bell Peppers (Capsicum annum L. cv "Goldmine") Produced Using Organic and Conventional Agricultural Practices.	Dr J Sheng, College of Food Science and Nutritional Engineering China Agricultural University



**2007-08**

<b>Name</b>	<b>Curriculum</b>	<b>Year</b>	<b>Project Title</b>	<b>Supervisor</b>
Cao Chang	BSc(3)	2	Effects of Spirulina and Spinach Supplementation on Serum Carotenoid Levels in Chinese Adults	Dr G Tang, Friedman School of Nutrition Science and Policy Tufts University, USA
Chu Chun Kit	BSc(3)	1	Investigation of Alkenylboration of $\alpha$ , $\beta$ -Unsaturated Compounds Catalyzed by 3, 3'-disubstitutedbinaphthols	Dr J M Chong, Department of Chemistry University of Waterloo, Canada
Lee Kai Yan	BSc(3)	2	Polarized Radiative Transfer in Active Galactic Nuclei (AGN) and Intergalactic Environment	Dr K Wu, Mullard Space Science Laboratory University College London, UK
Xia Xianfang	BSc(3)	2	Metabolic control in E. coli by quantitative system biology approach	Professor T Hwa, Department of Physics University of California, San Diego
Xie Zhaoqian	BSc(3)	2	Bioinformatics of the RNA with Molecular Dynamics Simulations	Professor S Doniach, Department of Physics Stanford University, USA
Qiu Zhen	BSc(3)	2	Innovation in Risk Management: Hedge the Volatility Risk	Professor C Bernard, Department of Statistics and Actuarial Science University of Waterloo, Canada