

Outputs Arising from Dean's Research Fund

Fourth Round

Seed Funding for Research Scheme (SFRS)	
Project Leader	Dr XIE Haoran, MIT
Project Title (<i>RefNo.</i>)	Key Technologies on Context-Aware Geometry Processing of Bas-Relief Surface (<i>SFRS-1</i>)
Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> 1. Luming Liang, Mingqiang Wei*, Andrzej Szymczak, Anthony Petrella, Haoran Xie, Jing Qin, Jun Wang, and Fu Lee Wang, Nonrigid iterative closest points for registration of 3D biomedical surfaces. <i>Optics and Lasers in Engineering</i>, 100, 141-154, 2018 (<u>2018</u>) 2. Mingqiang Wei, Jun Wang, Xianglin Guo, Huisi Wu, Haoran Xie*, Fu Lee Wang, and Jing Qin, Learning-based 3D surface optimization from medical image reconstruction. <i>Optics and Lasers in Engineering</i>, 103, 110-118, 2018. (<u>2018</u>) 3. Mingqiang Wei, Yidan Feng, Weiming Wang, Haoran Xie, and Fu Lee Wan, 魏明強*,馮一簣,王偉明,謝浩然,王富利., Interval Gradient Based Joint Bilateral Filtering for Image Texture Removal, <i>Computer Science</i>, 45(3), 29-34, 2018 (In Chinese), 基於區間梯度的聯合雙邊濾波圖像紋理去除方法. <i>計算機科學</i>, 45(3), 29-34, 2018 (<u>2018</u>) 4. Mingqiang Wei, Zhan Song, Ying Nie, Jianhuang Wu, Zhongping Ji, Yanwen Guo, Haoran Xie, Jun Wang and Fu Lee Wang, Normal-Based Bas-Relief Modeling via Near-Lighting Photometric Stereo, <i>Computer Graphic Forum</i> (<u>under review</u>) 5. Mingqiang Wei, Wai-Man Pang, Fu Lee Wang, Haoran Xie*, Jun Wang, Jing Qin, Joint Weighted Least Squares for Surface Normal Decomposition, <i>Optics and Lasers in Engineering</i> (<u>under review</u>) 6. Mingqiang Wei, Xianglin Guo, Jing Huang, Haoran Xie, Fu Lee Wang, Jing Qin, Jun Wang, Mesh Defiltering: Learning Normal Variations for Recovering Lost Geometry, <i>IEEE Transactions on Visualization and Computer Graphics</i> (<u>under review</u>) 7. Mingqiang Wei, Haoran Xie, Weixin Si, Jianhuang Wu, Jing Qin, Jun Wang, Selectively-Guided Normal Filtering for Geometric Texture Removal (<u>under preparation</u>)
Project Leader	Dr NG Fung Sheung, APS
Project Title (<i>RefNo.</i>)	Framing consent? An investigation of Hong Kong news media' framing effect on Hong Kong people about ethnic minority illegal migrants (<i>SFRS-2</i>)

Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> Ng, I.,*, Choi, S. F. & Chan, A. L, Framing the Issue of Asylum Seekers and Refugees for Tougher Refugee Policy- a Study of the Media’s Portrayal in Post-colonial Hong Kong. Journal of International Migration and Integration, 20(2), 593-617. (<u>under review</u>) Ng, I., Resistance to Framing? Online media portrayal of asylum seekers and refugees in Hong Kong. Journal of Computer Mediated Communication. (<u>Under Preparation</u>) <p>Conference:</p> <ol style="list-style-type: none"> 11th APISA congress entitled: ASEAN at 50 and Asia’s Contemporary Challenges: Human Security, Conflict Resolution, Connectivity and Democratization” Title: Framing the Issue of Asylum-seekers and refugees for tougher refugee policy – a study of the Media’s portrayal in Post-colonial Hong Kong <p>External Grant</p> <ol style="list-style-type: none"> GRF A local exclusivity lies global inclusion – nthe relational ontology of asylum-seekers and refugees and local community in a postcolonial Hong Kong village. (Date of application: June 2018)
Project Leader	Dr LI Chunxiao, HPE
Project Title (<i>Ref No.</i>)	Basic Psychological Need Satisfaction, Stress Responses, and Sport Injuries among University Athletes: A Pilot Study (<i>SFRS-3</i>)
Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> Li, C.*, Ivarsson, A., & Lam, L. T., Basic Psychological Need Satisfaction, Stress, and Sport Injury among University Athletes: A Four-Wave Prospective Survey (<u>under preparation</u>) <p>External Grant</p> <ol style="list-style-type: none"> GRF A local exclusivity lies global inclusion – nthe relational ontology of asylum-seekers and refugees and local community in a postcolonial Hong Kong village.
Project Leader	Dr TSE Choi Yeung Andy, HPE

Project Title (<i>Ref No.</i>)	Examining the Underlying Mechanism of Physical Exercise in Treating Stereotypic Behavior of Children with Autism Spectrum Disorder in the Context of Sensory Consequence (<i>SFRS-4</i>)
Output:	Journal/ book Tse C.Y.*, Examining the underlying mechanism of physical exercise in treating stereotypic behavior of children with autism spectrum disorder in the context of sensory consequence (<i>Under review</i>)
Project Leader	Dr LEUNG King Shun, MIT
Project Title (<i>Ref No.</i>)	Topological Structure of Self-affine Fractals (<i>SFRS-5</i>)
Output:	Journal/ book 1. K S Leung & J J Luo*, A characterization of connected self-affine fractals arising from collinear digits. Journal of Mathematical Analysis and Applications. Volume 45, Issue 1, pages 430-443 (<i>2017</i>) External Grant 1. GRF On the connectedness of self-affine sets
Project Leader	Dr MAN Yiu Kwong, MIT
Project Title (<i>Ref No.</i>)	On Computing the Inverse of Vandermonde Matrix (<i>SFRS-6</i>)
Output:	Journal/ book 1. Man Yiu Kwong, On computing the inverse of Vandermonde Matrix, Advances in Theoretical and Applied Mathematics; 13(1),15-21 (<i>2018</i>) Conference: 1. International Conference on Scientific Computing, IMECS Title: Solving linear homogeneous recurrence relation via the inverse of Vandermonde Matrix External Grant: 1. GRF On the sequence of measurable amounts and the optimal solution of the water jug problem
Project Leader	Dr YUEN Man Wai, MIT
Project Title (<i>Ref No.</i>)	New Methods for Blowup Properties of the Euler-Poisson Equations with Free Boundaries (<i>SFRS-7</i>)
Output:	Journal/ book

	<p>1. Liu, J. and Yuen, M. W.*, Blowup for Regular Solutions and C1 Solutions of Euler-poisson Equations in R^N with a free Boundary, Pre-print Submitted (<u>2018</u>)</p> <p>External Grant:</p> <p>1. GRF</p> <ul style="list-style-type: none"> ➤ The life span of the solutions for the Euler –Poisson equations ➤ The Evolution of the Solution of the Solutions of the Euler-Poisson Equations. (Date of application: Nov 2018)
Project Leader	Dr LEUNG Chi Fai, SES
Project Title (<i>Ref No.</i>)	Molecular Catalysis for Sustainable Generation of Hydrogen Peroxide (<i>SFRS-8</i>)
Output:	<p>Journal/ book</p> <p>1. Leung, C. F.*, Cheng, S. C., Yang, Y., Xiang, J., Yiu, S. M., Ko, C. C. & Lau, T.C., Efficient photocatalytic water reduction by a Cobalt (II) tripodal iminopyridine complex (<u>2019</u>)</p> <p>External Grant:</p> <p>1. GRF</p> <p>Catalysis for the Photochemical Generation of Hydrogen Peroxide from Dioxygen (Date of application: Nov 2018)</p>
Project Leader	Dr CHAN Man Ho, SES
Project Title (<i>Ref No.</i>)	Alternative Theories of Dark Matter (<i>SFRS-9</i>)
Output:	<p>Journal/ book</p> <p>1. Chan Man Ho* and Hui Hon Ka, Testing the Cubic Galileon Gravity Model by the Milky Way Rotation Curve and the SPARC Data, The Astrophysical Journal, 8561777(8pp), 2018 April 1 (<u>2018</u>)</p> <p>2. Chan Man Ho*, A Possible Signature of Annihilating Dark Matter, Monthly Notices of the Royal Astronomical Society, 474, 2576-2579, 2018 (<u>2018</u>)</p> <p>3. Chan, M. H*, A Comment on ‘Cosmology and Convention’ by David Merritt. (<u>2020</u>)</p> <p>Conference:</p> <p>1. World Congress of Philosophy Title: Is the history of our universe finite?</p> <p>External Grant</p> <p>1. RGC</p> <p>Testing alternative theories of gravity by astrophysical data</p>

Project Leader	Dr HO Wing Kei, SES
Project Title (<i>Ref No.</i>)	Carbon Vacancy-Induced Enhancement of Visible Light-driven Photocatalytic Oxidation of NO by g-C ₃ N ₄ Nanosheets (<i>SRFS-10</i>)
Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> Li, Y. Ho, W.K. *, Lv, K., Zhu, B. & Lee, S. C., Carbon vacancy-induced enhancement of the visible light-driven photocatalytic oxidation of NO over g-C₃N₄ nanosheets, <i>Applied Surface Science</i>, 430, 380-389. (<i>2018</i>) Yang, L., Wang, P., Yin, J., Wang, C. *, Dong, G., Wang, Y & Ho, W.K. *, Promoting the Carrier Separation of Nanosheet -g-C₃N₄ / Perylene Imide Heterojunction Photocatalysts by Modifying Reduced Graphene Oxide for an Enhanced Photocatalytic Redox Activity (<i>Under preparation</i>) <p>External Grant</p> <ol style="list-style-type: none"> GRF Surface Structure Tuning of Visible-light-Driven Photocatalyst for Selective Photocatalytic Reduction of Nitric Oxides to Nitrogen (Date of application: Nov 2017)

Bridge Funding for Research Scheme (BFRS)	
Project Leader	Dr SONG Yanji, MIT
Project Title (<i>Ref No.</i>)	Exploring STEM Pedagogical models in Hong Kong primary school education (<i>BRFS-1</i>)
Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> Song, Y.*, Improving primary students collaborative problem solving competency in project-based science learning with production failure instructional design in a seamless learning environment (<i>Under Review</i>) <p>Conference</p> <ol style="list-style-type: none"> The 22nd Global Chinese Conference on Computers in Education Title: Examining Primary Students' Collaborative Problem Solving in Science Using a Mobile Artifact Creation Approach (in Chinese) <p>External Grant</p> <ol style="list-style-type: none"> GRF A self-regulated vocabulary learning approach mediated by a mobile-generated-content tool for primary students in Hong Kong (Date of application: Nov 2018)
Project Leader	Dr LAM Chung Wah James, SES

Project Title (<i>Ref No.</i>)	Study of Organophosphate Flame Retardants and Plasticizers in Marine Mammals of South China (<i>BFRS-2</i>)
Output:	<p>Journal/ book</p> <ol style="list-style-type: none"> Yuefei Ruan, James C. W. Lam,*, Xiaohua Zhang and Paul K. S. Lam*, Temporal Changes and Stereoisomeric Compositions of 1,2,5,6,9,10-Hexabromocyclododecane (TBECH) and 1,2-dibromo-4-(1,2-dibromoethyl) cyclohexane in Marine Mammals from the South China Sea. <i>Environmental Science & Technology</i> 2018, 52, 2517-2526 (<u>2018</u>) <p>External Grant</p> <ol style="list-style-type: none"> GRF Emerging Organic flame retardants in Hong Kong marine wildlife (Date of application: 16 Sept 2018)