

The Chinese University of Hong Kong
Shun Hing Institute of Advanced Engineering
List of Publications Arising from SHIAE Supported Projects
(Batch 2014)

Project code	Publication
BME-p1-14 Prof CHEN Shih-Chi (MAE- CUHK) (8115046)	J[1] J. Cheng, C. Gu, D. Zhang, D. Wang, and S. Chen, "Ultrafast Axial Scanning for Two-photon Microscopy via a Digital Micromirror Device and Binary Holography," <i>Optics Letters</i> , OSA, USA, Vol. 41, No. 7, pp. 1451-54, 2016.
	J[2] Q. Geng, C. Gu, J. Cheng, and S. Chen, "Digital Micromirror Device-based Two-photon Microscopy for Three-dimensional and Random-access Imaging," <i>Optica</i> , OSA, USA, Vol. 4, No. 6, pp. 674-677, 2017.
	J[3] J. Jiang, D. Zhang, C. Gu, S. Walker, Y. Ke, W. Yung, and S. Chen, "Fast 3-D Temporal Focusing Microscopy Using an Electrically-tunable-lens," <i>Optics Express</i> , OSA, USA, Vol. 23, No. 19, pp. 24362-68, 2015.
	C[1] J. Cheng, D. Zhang, and S. Chen, "Multi-photon Laser Scanning Omnidirectional Imaging with Tunable Frame Rate", SPIE Photonic West, San Francisco, SPIE, USA, February 7-12, 2015. (Poster Competition Award)
	P[1] S. Chen, J. Cheng, C. Gu, and D. Zhang, The Chinese University of Hong Kong, "High-speed Binary Laser Beam Shaping and Scanning", U.S. Utility Patent Application, No. 14/860,461, Sept 21st, 2015.
BME-p2-14 Prof CHOI Chung Hang, Jonathan (EE-CUHK) (8115047)	J[1] Ho LWC, Yung WY, Sy KHS, Li HY, Choi CKK, Leung KCF, Lee TWY, Choi CHJ*. "Effect of alkylation on the cellular uptake of polyethylene glycol-coated gold nanoparticles". <i>ACS Nano</i> , 11, 6, 6085-6101 (2017).
	J[2] Yang H, Chen Z, Zhang L, Yung WY, Leung KCF, Chan HYE, Choi CHJ*. "Mechanism for the cellular uptake of targeted gold nanorods of defined aspect ratios". <i>Small</i> , 12, 37, 5178-5189 (2016).
	J[3] Choi CKK, Li J, Wei K, Xu YJ, Ho LWC, Zhu M, To KWK, Choi CHJ*, Bian L*. A gold@polydopamine core-shell nanoprobe for long-term intracellular detection of microRNAs in differentiating stem cells. <i>J. Am. Chem. Soc.</i> , 137, 23, 7337-7346 (2015).
	[Award] Croucher Innovation Award 2016: Site-specific delivery of nanoparticles: From basic investigations to biomedical applications (PI: Prof. CHOI Chung Hang Jonathan)
MMT-p2-14 Prof James CHENG (CSE-CUHK) (8115048)	[1] Y. Liu, F. Shang, W. Fan, J. Cheng, and H. Cheng, "Generalized Higher-Order Orthogonal Iteration for Tensor Decomposition and Completion," <i>Proceedings of the 27th Annual Conference on Neural Information Processing Systems</i> , Pages 1763-1771, 2014.
	[2] Y. Lu, J. Cheng, D. Yan, and H. Wu, "Large-Scale Distributed Graph Computing Systems: An Experimental Evaluation," <i>PVLDB</i> , Volume 8, Number 3, Pages 281-292, 2014.
	[3] F. Shang, Y. Liu, J. Cheng, and H. Cheng, "Recovering Low-Rank and Sparse Matrices via Robust Bilateral Factorization," <i>Proceedings of the 14th IEEE International Conference on Data Mining</i> , Pages 965-970, 2014.
	[4] F. Shang, Y. Liu, J. Cheng, and H. Cheng, "Robust Principal Component Analysis with Missing Data," <i>Proceedings of the 23rd ACM International Conference on Information and Knowledge Management</i> , Pages 1149-1158, 2014.

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MMT-p2-14 Prof James CHENG (CSE-CUHK) (8115048)	[5] D. Yan, J. Cheng, Y. Lu, and W. Ng, “Blogel: A Block-Centric Framework for Distributed Computation on Real-World Graphs,” <i>PVLDB</i> , Volume 7, Number 14, Pages 1981-1992, 2014.
	[6] D. Yan, J. Cheng, K. Xing, Y. Lu, W. Ng, and Y. Bu, “Pregel Algorithms for Graph Connectivity Problems with Performance Guarantees,” <i>PVLDB</i> , Volume 7, Number 14, Pages 1821-1832, 2014.
	[7] D. Yan, J. Cheng, Y. Lu, and W. Ng, “Effective Techniques for Message Reduction and Load Balancing in Distributed Graph Computation,” <i>Proceedings of the 24th International World Wide Web Conference</i> , Pages 1307-1317, 2015.
	[8] F. Shang, Y. Liu, H. Tong, J. Cheng, and H. Cheng, “Robust Bilinear Factorization with Missing and Grossly Corrupted Observations,” <i>Information Sciences</i> , Volume 307, Pages 53-72, 2015.
	[9] H. Wu, J. Cheng, Y. Lu, Y. Ke, Y. Huang, D. Yan, and H. Wu, “Core Decomposition in Large Temporal Graphs,” <i>Proceedings of the 2015 IEEE International Conference on Big Data</i> , Pages 649-658, 2015.
	[10] Y. Liu, F. Shang, W. Fan, J. Cheng, and H. Cheng, “Generalized Higher-Order Orthogonal Iteration for Tensor Learning and Decomposition,” <i>IEEE Transactions on Neural Networks and Learning Systems</i> , Volume 27, Number 12, Pages 2551-2563, 2016.
	[11] F. Shang, Y. Liu, and J. Cheng, “Scalable Algorithms for Tractable Schatten Quasi-Norm Minimization,” <i>Proceedings of the 30th AAAI Conference on Artificial Intelligence</i> , Pages 2016-2022, 2016.
	[12] H. Wu, Y. Huang, J. Cheng, J. Li, and Y. Ke, “Reachability and Time-Based Path Queries in Temporal Graphs,” <i>Proceedings of the 32nd IEEE International Conference on Data Engineering</i> , Pages 145-156, 2016.

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