

鍾思齊教授 (Szu-Chi Chung) (106 年畢業，110 年 8 月到校)

(A) 期刊論文

1. Wei-Hau Chang, Shih-Hsin Huang, Hsin-Hung Lin, Szu-Chi Chung, I-Ping Tu, Cryo-EM analyses permit visualization of structural polymorphism of biological macromolecules, *Frontiers in Bioinformatics* 74, 2021. [NSYSU]
2. Wei-Hau Chang, Hsin-Hung Lin, I-Kuen Tsai, Shih-Hsin Huang, Szu-Chi Chung, I-Ping Tu, Steve Yu, Sunney I. Chan. Copper Centers in the Cryo-EM Structure of Particulate Methane Monooxygenase Re-veal the Catalytic Machinery of Methane Oxidation. *Journal of the American Chemical Society*, 143, 9922-9932, 2021. [SCI]
3. Szu-Chi Chung, Shao-Hsuan Wang, Po-Yao Niu, Su-Yun Huang, Wei-Hau Chang, I-Ping Tu. Two-stage dimension reduction for noisy high-dimensional images and application to Cryogenic Electron Microscopy. *Annals of Mathematical Sciences and Applications* 5, 283-316, 2020. (Receive 2020 ICCM Best Paper Silver Award). [ESCI]
4. Szu-Chi Chung, Hsin-Hung Lin, Po-Yao Niu, Shih-Hsin Huang, I-Ping Tu, Wei-Hau Chang. Pre-Pro is a Fast Pre-Processor for Single-Particle Cryo-EM by Enhancing 2D Classification. *Communications Biology* 3, 1-12, 2020. [SCI]
5. Szu-Chi Chung, Chun-Yuan Yu, Sung-Shine Lee, Hsie-Chia Chang, Chen-Yi Lee. An Improved DPA Countermeasure Based on UDRPG for IoT Applications. *IEEE Transactions on Circuits and Systems I (TCAS-I)* 64, 2522–2531, 2017. [SCI]
6. Szu-Chi Chung, Jing-Yu Wu, Hsing-Ping Fu, Jen-Wei Lee, Hsie-Chia Chang, Chen-Yi Lee. Efficient Hardware Architecture of ηT Pairing Accelerator Over Characteristic Three. *IEEE Transactions on Very Large Scale Integration (VLSI) System* 23, 88–97, 2015. [SCI]
7. Jen-Wei Lee, Szu-Chi Chung, Hsie-Chia Chang, Chen-Yi Lee. Efficient Power Analysis Resistant Dual-Field Elliptic Curve Cryptographic Processor Using Heterogeneous Dual Processing Element Architecture. *IEEE Transactions on Very Large Scale Integration (VLSI) System* 22, 49–61, 2014. [SCI]

(B) 專書及其他著作

1. Tze Leung Lai, Shao-Hsuan Wang, Yi-Ching Yao, Szu-Chi Chung, Wei-Hau Chang, and I-Ping Tu (2021). *Cryo-EM: Breakthroughs in Chemistry, Structural Biology, and Statistical Underpinnings*. Preprint, submitted to *Statistical Science*.
2. Szu-Chi Chung, Cheng-Yu Hung, Huei-Lun Siao, Hung-Yi Wu, Wei-Hau Chang, I-Ping Tu (2021). *Cryo-RALib – a modular library for accelerating alignment in cryo-EM*. Accepted by *IEEE International Conference on Image Processing (ICIP)*.
3. Szu-Chi Chung, Shao-Hsuan Wang, Cheng-Yu Hung, Wei-Hau Chang, I-Ping Tu (2021). *rAMI–Rapid Alignment with Moment of Inertia for Cryo-EM Image Processing*. *Microscopy and Microanalysis 2021 Meeting*.
4. Szu-Chi Chung, Hung-Yi Wu, Wei-Hau Chang, and I-Ping Tu (2021). *Grouping 3D Structure Conformations using Network Analysis on 2D Cryo-EM Projection Images*. *Focus on Microscopy 2021*.
5. Szu-Chi Chung, Shao-Hsuan Wang, Po-Yao Niu, Su-Yun Huang, I-Ping Tu, Wei-Hau Chang (2020). *Accelerated cryo-EM workflow*. *The 29th South Taiwan Statistics Conference*.
6. Szu-Chi Chung, Po-Yao Niu, Su-Yun Huang, Wei-Hau Chang, I-Ping Tu (2019). *A Two-Stage Dimension Reduction Method For Cryo-EM Image Processing*. *Microscopy and Microanalysis 2019 Meeting*.
7. Szu-Chi Chung, Po-Yao Niu, Su-Yun Huang, Wei-Hau Chang, I-Ping Tu (2018). *A Dimension Reduction Method for cryo-EM Image Analysis*. *The 27th South Taiwan Statistics Conference*.
8. Sung-Shine Lee, Szu-Chi Chung, Chun-Yuan Yu, Hsie-Chia Chang, Chen-Yi Lee (2015). *A New Power Analysis Attack on Stream cipher Trivium-64*. *VLSI Design/CAD Symposium (VLSI-CAD)*.
9. Szu-Chi Chung, Sung-Shine Lee, Hsie-Chia Chang, Chen-Yi Lee (2014). *Implementing Bilinear Pairing Accelerator Using Residue Number System*. *VLSI Design/CAD Symposium (VLSI-CAD)*.
10. Jen-Wei Lee, Szu-Chi Chung, Hsie-Chia Chang, Chen-Yi Lee (2013). *A 3.40ms/GF(p521) and 2.77ms/GF(2521) DF-ECC Processor with Side-Channel Attack Resistance*. *International Solid-State Circuits Conference (ISSCC)*, 50-51.
11. Jen-Wei Lee, Szu-Chi Chung, Hsie-Chia Chang, Chen-Yi Lee (2012). *An Efficient Countermeasure against Correlation Power-Analysis Attacks with Randomized Montgomery Operations for DF-ECC Processor*. *Conference on Cryptographic Hardware and Embedded Systems (CHES)*, 548-564 (2012)
12. Szu-Chi Chung, Jen-Wei Lee, Hsie-Chia Chang, Chen-Yi Lee (2012). *High-performance elliptic curve cryptographic processor over GF(p) with SPA resistance*. *IEEE International Symposium on Circuits and Systems (ISCAS)*, 1456–1459.