

107 年 5 月 通過 學術審查

年 級：博九（96 博士班入學）

著作列表

Journal Papers

1. **Tsai, M. H.**, Liu, Y. Y., & Soo, V. W. (2017). PathoBacTyper: A Web Server for Pathogenic Bacteria Identification and Molecular Genotyping. *Frontiers in microbiology*, 8, 1474. (SCI, IF=4.076 (2017), 5-Year IF=4.526)
2. Liao, Y. C., **Tsai, M. H.**, Chen, F. C., & Hsiung, C. A. (2012). GEMSiRV: a software platform for GENome-scale metabolic model simulation, reconstruction and visualization. *Bioinformatics*, 28(13), 1752-1758. (SCI, IF= 5.323 (2012), 5-Year IF= 6.911)
3. Liao, Y. C., Ko, C. Y., **Tsai, M. H.**, Lee, M. S., & Hsiung, C. A. (2009). ATIVS: analytical tool for influenza virus surveillance. *Nucleic acids research*, 37(suppl_2), W643-W646. (SCI, IF= 7.479 (2009), 5-Year IF= 7.279)

107 年 5 月 通過 學術審查

年 級：博七（99 博士班入學，修業 8 年）

著作列表

Journal Papers

- [1] **Shao-Chung Wang**, Li-Chen Kan, Chao-Lin Lee, Yuan-Shin Hwang, and Jenq-Kuen Lee. “Architecture and Compiler Support for GPUs Using Energy-Efficient Affine Register Files”, *ACM Transactions on Design Automation of Electronic Systems (TODAES)*, Volume 23 Issue 2, Article 18, November 2017, 25 pages.
- [2] Chun-Chieh Yang, **Shao-Chung Wang**, Min-Yi Hsu, Yuan-Ming Chang, Yuan-Shin Hwang and Jenq-Kuen Lee, “Support OpenCL 2.0 Compiler on LLVM for PTX Simulators”, *Journal of Signal Processing Systems*, Springer, Accepted.
- [3] Yuan-Ming Chang, **Shao-Chung Wang**, Chun-Chieh Yang, Yuan-Shin Hwang, and Jenq-Kuen Lee. “Enabling PoCL-Based Runtime Frameworks on the HSA for OpenCL 2.0 Support”, *Journal of Systems Architecture*, Volume 81, November 2017, Pages 71-82.

Conference Papers

- [1] Heng Lin, **Shao-Chung Wang**, Jenq-Kuen Lee, “Enabling Rust Flow and Framework for RISC-V Architectures”, *The 8th RISC-V Workshop*, Barcelona, 7-10 May 2018. (Poster)
- [2] Lin-Ya Yu, **Shao-Chung Wang**, and Jenq-Kuen Lee, “Hierarchical Read/Write Analysis for Pointer-Based OpenCL Programs on RRAM”, *International Workshop on Embedded Multi-core Systems (in Conjunction with International Conference on Parallel Processing)(ICPP-EMS 2017)*, pp.45-52, Bristol, UK, 14-17 Aug. 2017
- [3] Chun-Chieh Yang, **Shao-Chung Wang**, Min-Yi Hsu, Yuan-Ming Chang, Yuan-Shin Hwang and Jenq-Kuen Lee, “OpenCL 2.0 Compiler Adaptation on LLVM for PTX Simulators”, *International Workshop on Embedded Multi-core Systems (in Conjunction with International Conference on Parallel Processing)(ICPP-EMS 2017)*, pp.53-58, Bristol, UK, 14-17 Aug. 2017.
- [4] Li Wang, Ren-Wei Tsai, **Shao-Chung Wang**, Kun-Chih Chen, Po-Han Wang, Hsiang-Yun Cheng, Yi-Chung Lee, Sheng-Jie Shu, Chun-Chieh Yang, Min-Yih

- Hsu, Li-Chen Kan, Chao-Lin Lee, Tzu-Chieh Yu, Rih-Ding Peng, Chia-Lin Yang, Yuan-Shin Hwang, Jenq-Kuen Lee, Shiao-Li Tsao, and Ming Ouhyoung, "Analyzing OpenCL 2.0 Workloads Using a Heterogeneous CPU-GPU Simulator", *IEEE International Symposium on Performance Analysis of Systems and Software (ISPASS)*, pp.127-128, Santa Rosa, CA, 24-25 April 2017. (Poster)
- [5] **Shao-Chung Wang**, Li-Chen Kan, Yuan-Shin Hwang and Jenq-Kuen Lee, "Energy Efficient Affine Register File for GPU Microarchitecture", *International Workshop on Embedded Multi-core Systems (in Conjunction with International Conference on Parallel Processing) (ICPP-EMS)*, pp.52-58, Philadelphia, PA, 16-19 Aug. 2016.
- [6] Hsiang-Wei Sung, Yuan-Ming Chang, **Shao-Chung Wang**, and Jenq Kuen Lee, "OpenCV Optimization on Heterogeneous Multi-core Systems for Gesture Recognition Applications", *International Workshop on Embedded Multi-core Systems (in Conjunction with International Conference on Parallel Processing) (ICPP-EMS)*, pp.59-65, Philadelphia, PA, 16-19 Aug. 2016.
- [7] Chun-Chieh Yang, **Shao-Chung Wang**, Chou-Chuan Chen, and Jenq-Kuen Lee, "The Support of an Experimental OpenCL Compiler on HSA Environments", *International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA)*, Las Vegas, Nevada, 27-20 July 2017.
- [8] **Shao-Chung Wang**, Ming-Yu Hung, Yuan-Shin Hwang, Roy Dz-Ching Ju, and Jenq-Kuen Lee, "Pointer-Based Divergence Analysis in the SSA Form", *The 17th International Workshop on Compilers for Parallel Computing (CPC'13)*, Lyon France, July 2013.
- [9] Yu-Te Lin, Chi-Bang Kuan, **Shao-Chung Wang**, and Jenq-Kuen Lee, "A Functional Approach to Optimize SIMD Computations of OpenCL Programs", *The 16th International Workshop on Compilers for Parallel Computing (CPC'12)*, Padova, Italy, Jan 2012.
- [10] Chi-Bang Kuan, **Shao-Chung Wang**, Wen-Li Shih, Kun-Hsien Tsai, Shang-Hong Lai and Jenq Kuen Lee, "Parallelization of a Bokeh Application on Embedded Multicore DSP Systems", *In 2011 9th IEEE Symposium on Embedded Systems for Real-Time Multimedia (ESTIMedia'11)*, pp. 93-101, Taipei, Taiwan, October 2011.
- [11] Yu-Te Lin, **Shao-Chung Wang**, Wen-Li Shih, Kun-Yuan Brian Shieh, and Jenq-Kuen Lee, "Enable OpenCL Compiler with Open64 Infrastructures", *The 2011 International Workshop on Embedded Multi-core Computing and Applications (in conjunction with the IEEE International Conference on High Performance Computing and Communications) (EMCA)*, pp. 863-868, Banff,

Canada, September 2011.

- [12] Yu-Te Lin, **Shao-Chung Wang**, Ming-Yu Hung, Jia-Jhe Li, and Jenq-Kuen Lee, “OpenCL Update”, *The 2011 Open64 Developers Forum*, HP Campus Cupertino, CA, USA, June 2011.
- [13] Yu-Te Lin, Chung-Ju Wu, Chia-Han Lu, **Shao-Chung Wang**, and Jenq-Kuen Lee, “OpenCL Compiler Support Based on Open64 for MPUs+GPUs”, *The 2010 Open64 Developers Forum*, HP Campus Cupertino, CA, USA, August 2010.
- [14] Jia-Jer Li, **Shao-Chung Wang**, Po-Chun Hsu, Po-Yu Chen, and Jenq Kuen Lee, “A Multi-Core Software API for Embedded MPSoC Environments”, *Methods and Tools of Parallel Programming Multicomputers (MTPP)*, Second Russia-Taiwan Symposium, May 16-19, 2010. (Also in LNCS 6083)
- [15] Cheng-Yen Lin, **Shao-Chung Wang**, Ming-Yu Hung, Kun-Yuan Hsieh, and Jenq-Kuen Lee, ”Software Cache Support and API Design for Embedded DSP Processor”, *International SoC Design Conference (ISOCC)*, Busan, Korea, November 2009. (Invited Paper)

Patent

- [1] **Shao-Chung Wang** and Jenq-Kuen Lee, “Method for Divergence Analysis of Pointer-Based Program”, US Grant Patent, No. US9201636 B2, Dec 1, 2015.
- [2] Yang-Kun Hua, **Shao-Chung Wang** and Jenq-Kuen Lee, “Method and Apparatus for Code Size Reduction”, US Grant Patent, No. US9122494 B2, Sep 1, 2015.

107 年 5 月 通過 學術審查

年 級：博五 (102 博士班入學)

著作列表

Journal Papers

1. **K.-T. Chen**, C.L. Lu, CSAR-web: a web server of contig scaffolding using algebraic rearrangements, To appear in *Nucleic Acids Research*, (2018). **SCI = 10.162, Rank = 14/290 = 4.82%, in Biochemistry & Molecular Biology**
2. **K.-T. Chen**, C.-L. Liu, S.-H. Huang, H.-T. Shen, Y.-K. Shieh, H.-T. Chiu and C.L. Lu, CSAR: a contig scaffolding tool using algebraic rearrangements, *Bioinformatics*, 34 (2018) 109-111. **SCI = 7.307, Rank = 2/57 = 3.50%, in Mathematical & Computational Biology category**
3. **K.-T. Chen**, C.-J. Chen, H.-T. Shen, C.-L. Liu, S.-H. Huang and C.L. Lu, Multi-CAR: a tool of contig scaffolding using multiple references, *BMC Bioinformatics*, 17 (2016) 469. **SCI = 2.448, Rank = 10/57 = 17.54%, in Mathematical & Computational Biology category**
4. C.-H. Yang, C.-T. Shih, **K.-T. Chen**, P.-H. Lee, P.-H. Tsai, J.-C. Lin, C.-Y. Yen, T.-Y. Lin and C.L. Lu, iPARTS2: an improved tool for pairwise alignment of RNA tertiary structures, version 2, *Nucleic Acids Research*, 44 (2016) W328-332. **SCI = 10.162, Rank = 14/290 = 4.82%, in Biochemistry & Molecular Biology**
5. **K.-T. Chen**, C.-L. Li, H.-T. Chiu and C.L. Lu, An efficient algorithm for one-sided block ordering problem under block-interchange distance, *Theoretical Computer Science*, 609 (2016) 296-305. **SCI = 0.698, Rank = 85/104 = 81.73%, in Computer Science, Theory & Methods**
6. C.L. Lu, **K.-T. Chen**, S.-Y. Huang and H.-T. Chiu, CAR: contig assembly of prokaryotic draft genomes using rearrangements, *BMC Bioinformatics*, 15 (2014) 381. **SCI = 2.448, Rank = 10/57 = 17.54%, in Mathematical & Computational Biology category**
7. C.-L. Li, **K.-T. Chen** and C.L. Lu, Assembling contigs in draft genomes using reversals and block-interchanges, *BMC Bioinformatics*, 14 (2013) S9. **SCI = 2.448, Rank = 10/57 = 17.54%, in Mathematical & Computational Biology category**

Conference Papers

1. C.-Y. Yen, J.-C. Lin, **K.-T. Chen** and C.L. Lu, R3D-BLAST2: an improved search tool for similar RNA 3D substructures, in: *16th International Conference on Bioinformatics (InCoB 2017)*, **Best Paper Award (Gold)**, 2017
2. **K.-T. Chen**, C.-J. Chen, H.-T. Shen, C.-L. Liu, S.-H. Huang and C.L. Lu, Multi-CAR: a tool of contig scaffolding using multiple references, in: *Proceedings of the 27th International Conference on Genome Informatics (GIW 2016)*, 2016.
3. C.-H. Yang, C.-T. Shih, **K.-T. Chen**, P.-H. Lee, P.-H. Tsai, J.-C. Lin, C.-Y. Yen, T.-Y. Lin and C.L. Lu, iPARTS2: an improved tool for pairwise alignment of RNA tertiary structures, version 2, in: *Proceedings of the 27th International Conference on Genome Informatics (GIW 2016)*, **highlight paper**, 2016.
4. **K.-T. Chen**, H.-T. Chiu and C.L. Lu, CAR: contig assembly of prokaryotic draft genomes using rearrangements, in: *1st joint conference between International Conference on Genome Informatics and International Conference on Bioinformatics (GIW/InCoB 2015)*, Odaiba, Tokyo, 2015.
5. S.-W. Chou, C.-H. Yang, **K.-T. Chen** and C.L. Lu, Prefix block-interchanges on binary strings, in: *Proceedings of the 2014 International Computer Symposium (ICS 2014)*, *Frontiers in Artificial Intelligence and Applications*, IOS Press, vol. 274, 2014, pp. 1960-1969.
6. **K.-T. Chen**, C.-L. Li, C.-H. Yang and C.L. Lu, An efficient algorithm for one-sided block ordering problem with block-interchange distance, in: *D.-Z. Du and G. Zhang eds., Proceedings of the 19th Annual International Computing and Combinatorics Conference (COCOON 2013)*, *Lecture Notes in Computer Science*, Springer-Verlag, vol. 7936, 2013, pp. 409-420.
7. C.-L. Li, **K.-T. Chen** and C.L. Lu, Assembling contigs in draft genomes using reversals and block-interchanges, in: *Proceedings of the Third Annual RECOMB Satellite Workshop on Massively Parallel Sequencing (RECOMB-seq 2013)*, 2013.