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EDUCATIONAL BACKGROUND

- PhD** Computer Science and Information Engineering, National Taiwan University,
June 1998
- MS** Computer Science and Information Engineering, National Central University,
June 1994
- BS** Computer Science and Information Engineering, Tamkang University,
June 1992

AREA OF INTEREST

- ❖ Computational Molecular Biology
- ❖ Graph-Theoretic Interconnection Networks
- ❖ Graph Theory
- ❖ Design and Analysis of Algorithms
- ❖ Parallel Computation

JOURNAL PUBLICATIONS

1. Sun-Yuan Hsieh, "A Faster Parallel Connectivity Algorithm on Cographs," *Applied Mathematics Letters*, accepted and to appear, 2006. (SCI; impact factor: 0.345)
2. Sun-Yuan Hsieh, "An efficient parallel strategy for the perfect domination problem on distance-hereditary graphs," *Journal of Supercomputing*, accepted and to appear, 2006. (SCI; impact factor: 0.482)
3. Sun-Yuan Hsieh, "The interval-merging problem," *Information Sciences*, accepted and to appear, 2006. (SCI, EI; impact factor: 0.723)
4. Sun-Yuan Hsieh and Nai-Wen Chang, "Pancyclicity on the Mobius cube with both faulty nodes and faulty edges," *IEEE Transactions on Computers*, accepted and to

- appear. (SCI, EI; impact factor 1.875)
5. Sun-Yuan Hsieh and Tien-Te Hsiao, "The k -degree Cayley graph and its topological properties," *Networks*, vol. 47, issue 1, pp. 26-36, 2006. (SCI; impact factor 0.742)
 6. Sun-Yuan Hsieh, Chin-Wen Ho, Tsan-Sheng Hsu, and Min-Tat Ko, "The Hamiltonian problem on distance-hereditary graphs," *Discrete Applied Mathematics*, 154, issue 3, pp. 508-524, 2006. (SCI, EI; impact factor 0.585. Note: this paper was submitted in 11/2002.)
 7. Sun-Yuan Hsieh, "Fault-tolerant cycle embedding in the hypercube with more both faulty vertices and faulty edges," *Parallel Computing*, vol. 32, issue 1, pp. 84-91, 2006. (SCI Expanded, EI; impact factor 0.855)
 8. Sun-Yuan Hsieh, and Zhe-Nan Guo, "1-vertex-Hamiltonian-laceability of hypercubes with maximal edge faults," *Journal of Interconnection Networks*, vol. 6, no. 4, pp. 407-415, 2005.
 9. Sun-Yuan Hsieh, "Embedding longest fault-free paths onto star graphs with more vertex faults," *Theoretical Computer Science*, vol. 337, issues 1-3, pp. 370-378, 2005. (SCI, EI; impact factor 0.743)
 10. Sun-Yuan Hsieh, "Efficiently parallelizable problems on a class of decomposable graphs," *Journal of Computer and System Sciences*, vol. 70, no. 1, pp. 140-156, 2005. (SCI, EI; impact factor 1.328)
 11. Sun-Yuan Hsieh and Chun-Hua Chen, "Pancyclicity on Möbius cubes with maximal edge faults," *Parallel Computing*, vol. 30, no. 3, pp. 407-421, 2004. (SCI Expanded, EI; impact factor 0.855)
 12. Sun-Yuan Hsieh, "An efficient parallel strategy for the two-fixed-endpoint Hamiltonian path problem on distance-hereditary graphs," *Journal of Parallel and Distributed Computing*, vol. 64, no. 5, pp. 662-685, 2004. (SCI, EI; impact factor 0.9)
 13. Sun-Yuan Hsieh, "A simple and fast parallel coloring algorithm for distance-hereditary graphs," *IEEE Transactions on Parallel and Distributed Systems*, vol. 14, no. 12, pp. 1201-1208, 2003. (SCI, EI; impact factor 1.462)
 14. Sun-Yuan Hsieh, "An efficient parallel algorithm for the efficient domination problem on distance-hereditary graphs," *IEEE Transactions on Parallel and Distributed Systems*, vol. 13, no. 9, pp. 985-993, 2002. (SCI, EI; impact factor 1.462)
 15. Sun-Yuan Hsieh, "On vertex ranking of a starlike graph," *Information Processing Letters*, vol. 82, no. 3, pp. 131-135, 2002. (SCI Expanded, EI; impact factor 0.557)
 16. Sun-Yuan Hsieh, Chin-Wen Ho, Tsan-sheng Hsu, Ming-Tat Ko, and Gen-Huey

- Chen, "Characterization of efficiently parallel solvable problems on distance-hereditary graphs," *SIAM Journal on Discrete Mathematics*, vol. 15, no. 4, pp. 488-518, 2002. (SCI, EI; impact factor 0.885)
17. Sun-Yuan Hsieh, Gen-Huey Chen, and Chin-Wen Ho, "Longest fault-free paths in star graphs with edge faults," *IEEE Transactions on Computers*, vol. 50, no. 9, pp. 960-971, 2001. (SCI, EI; impact factor 1.875)
 18. Sun-Yuan Hsieh, Gen-Huey Chen, and Chin-Wen Ho, "Longest fault-free paths in star graphs with vertex faults," *Theoretical Computer Science*, vol. 262, no. 1-2, pp. 215-227, 2001. (SCI, EI; impact factor 0.743)
 19. Sun-Yuan Hsieh, Chin-Wen Ho, Tsan-Sheng Hsu, Ming-Tat Ko, and Gen-Huey Chen, "A faster implementation of a parallel tree contraction scheme and its application on distance-hereditary graphs," *Journal of Algorithms*, vol. 35, pp. 50-81, 2000. (SCI, EI; impact factor 1.138)
 20. Sun-Yuan Hsieh, Gen-Huey Chen, and Chin-Wen Ho, "Hamiltonian-laceability of star graphs," *Networks*, vol. 36, no. 4, pp. 225-232, 2000. (SCI; impact factor 0.742)
 21. Sun-Yuan Hsieh, Chin-Wen Ho, Tsan-Sheng Hsu, Ming-Tat Ko, and Gen-Huey Chen, "Efficient parallel algorithms on distance-hereditary graphs," *Parallel Processing Letters*, vol.9, no. 1, pp. 43-52, 1999. (EI)
 22. Chin-Wen Ho, Sun-Yuan Hsieh, and Gen-Huey Chen, "Parallel decomposition of generalized-series-parallel graphs," *Journal of Information Science and Engineering*, vol. 15, no. 3, pp. 407-417, 1999. (SCI Expanded, EI; impact factor 0.268)
 23. Sun-Yuan Hsieh, Chin-Wen Ho, and Gen-Huey Chen, "Fault-free Hamiltonian cycles in faulty arrangement graphs," *IEEE Transactions on Parallel and Distributed Systems*, vol. 10, no. 3, pp. 223-237, 1999. (SCI, EI; impact factor 1.462)
 24. Chin-Wen Ho, Sun-Yuan Hsieh, and Gen-Huey Chen, "An efficient parallel strategy for computing k -terminal reliability and finding most vital edges in 2-trees and partial 2-trees," *Journal of Parallel and Distributed Computing*, vol. 51, pp. 89-113, 1998. (SCI; impact factor 0.9)

CONFERENCE PUBLICATIONS

1. Sun-Yuan Hsieh, "Linear-time algorithms for two subtree-comparison problems on phylogenetic trees with different species," *Proceedings of the 26th Conference on Foundations of Software Technology and Theoretical Computer Science (FSTTCS 2006, Kolkata, India)*, *Lecture Notes in Computer Science*, 2006. (SCI

- Expanded, impact factor 0.402)
2. Sun-Yuan Hsieh and Shih-Cheng Yang, "MAX-SNP hardness and approximation of selected-internal Steiner trees," *Proceedings of the 12th Annual International Computing and Combinatorics Conference (COCOON 2006), Lecture Notes in Computer Science 4112*, pp. 449-458, 2006. (SCI Expanded, impact factor 0.402)
 3. Sun-Yuan Hsieh and Huang-Ming Gao, "Hardness and Approximation of the Selected-leaf-terminal Steiner Tree Problem," *Proceedings of the 7th International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT'06, Taipei, TAIWAN)*, IEEE Computer Society Press. (EI)
 4. Sun-Yuan Hsieh and Pei-Yu Yu, "Cycle Embedding on Twisted Cubes," *Proceedings of the 7th International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT'06, Taipei, TAIWAN)*, IEEE Computer Society Press. (EI)
 5. Sun-Yuan Hsieh, "Fault-Free Pairwise Independent Hamiltonian Paths on Faulty Hypercubes," *Proceedings of the 11th Asia-Pacific Conference on Advances in Computer Systems Architecture (ACSAC 06, Shanghai, China), Lecture Notes in Computer Science 4186*, pp. 373-379. (SCI Expanded; impact factor 0.402)
 6. Sun-Yuan Hsieh and Chao-Wen Huang, "A Web-based System for finding subtrees on phylogenetic trees," *Proceeding of the 2nd International Conference on Natural Computation and the 3rd International Conference on Fuzzy Systems and Knowledge Discovery (ICNC'06-FSKD'06)*, accepted.
 7. Sun-Yuan Hsieh, "Fault-free mutually independent Hamiltonian cycles in the hypercube with faulty edges," *Proceedings of the International Conference on Innovative Computing, Information and Control (ICICIC-2006, Beijing, China)*, pp. 288-292, IEEE Computer Society Press. (EI)
 8. Sun-Yuan Hsieh and Zhe-Nan Guo, "Hamiltonian-Connectivity and Strongly Hamiltonian-Laceability of Folded Hypercubes," *Proceedings of the 2006 International Conference on Foundations of Computer Science (FCS'06, Las Vegas, USA)*, pp. 48-50, 2006.
 9. Sun-Yuan Hsieh and Ting-Yu Chou, "Finding a weight-constrained maximum-density subtree in a tree," *Proceedings of the 16th International Symposium on Algorithms and Computation (ISAAC 2005), Lecture Notes in Computer Science 3827*, pp. 944-953, 2005. (SCI Expanded; impact factor 0.402)
 10. Sun-Yuan Hsieh, "Embedding of cycles in the faulty hypercube," *Proceedings of the 10th Asia-Pacific Conference on Advances in Computer Systems Architecture*

- (ACSAC'05), *Lecture Notes in Computer Science* 3740, pp. 229-235, 2005. (SCI Expanded; impact factor 0.402)
11. Sun-Yuan Hsieh and Nai-Wen Chang, "Cycle Embedding on the Mobius Cube with Both Faulty Nodes and Faulty Edges," *Proceedings of the Eleventh International Conference on Parallel and Distributed Systems (ICPADS'05)*, Volume II Workshops, pp. 620-624, Fukuoka Institute of Technology (FIT), Fukuoka, Japan, IEEE Computer Society Press. (EI)
 12. Sun-Yuan Hsieh, "Characterization of Efficiently Parallel Solvable Problems on a Class of Decomposable Graphs," *Proceedings of the 4th International Conference on Computational Science (ICCS)*, *Lecture Notes in Computer Science* 3036, pp. 223-230, 2004. (SCI Expanded; impact factor 0.402)
 13. Sun-Yuan Hsieh and Tien-Te Hsiao, "Topological Properties, Optimal Routing, and Embedding on the K-valent Graph," *Proceedings of the 2004 International Conference on Parallel Processing (ICPP)*, pp. 206-213, IEEE Computer Society Press. (EI)
 14. Sun-Yuan Hsieh and Chun-Hua Chen, "Pancyclicity on Möbius Cubes with Edge Faults," *Proceedings of International Symposium on Parallel Algorithms and Architectures (ISPAN)*, pp. 168-173, 2004, IEEE Computer Society Press. (EI)
 15. Sun-Yuan Hsieh and Zhe-Nan Guo, "Strongly Hyper-Hamiltonian-Laceability of Hypercubes," *Proceedings of the 2004 International Conference on Parallel and Distributed Processing Techniques and Applications (PDPTA)*, pp. 1081-1083.
 16. Sun-Yuan Hsieh, Chin-Wen Ho, Tsan-Sheng Hsu, and Min-Tat Ko, "Efficient algorithms for the Hamiltonian problem on distance-hereditary graphs," *Proceedings of the 8th International Conference on Computing and Combinatorics (COCOON)*, *Lecture Notes in Computer Science* 2387, pp. 77-86, 2002. (SCI Expanded; impact factor 0.402)
 17. Sun-Yuan Hsieh, "Parallel decomposition of distance-hereditary graphs," *Proceedings of 4th International ACPC Conference Including Special Tracks on Parallel Numerics and Parallel Computing in Image Processing, Video Processing, and Multimedia (ACPC)*, *Lecture Notes in Computer Science* 1557, pp. 417-426, 1999. (SCI Expanded; impact factor 0.402)
 18. Sun-Yuan Hsieh, Gen-Huey Chen, and Chin-Wen Ho, "An optimal parallel algorithm for the perfect dominating set problem on distance-hereditary graphs," *Proceedings of the 4th Asian Computing Science Conference (ASIAN)*, *Lecture Notes in Computer Science* 1538, pp. 113-124, 1998. (SCI Expanded; impact factor 0.402)
 19. Sun-Yuan Hsieh, Chin-Wen Ho, Tsan-Sheng Hsu, Ming-Tat Ko, and Gen-Huey

- Chen, "Characterization of efficiently solvable problems on distance-hereditary graphs," *Proceedings of the 9th International Symposium on Algorithms and Computation (ISAAC), Lecture Notes in Computer Science 1533*, pp. 257-266, 1998. (SCI Expanded; impact factor 0.402)
20. Sun-Yuan Hsieh, Chin-Wen Ho, Tsan-Sheng Hsu, Ming-Tat Ko, and Gen-Huey Chen, "A new simple parallel tree contraction scheme and its application on distance-hereditary graphs," *Proceedings of the 5th International Symposium on Solving Irregularly Structured Problems in Parallel (IRREGULAR), Lecture Notes in Computer Science 1457*, pp. 298-309, 1998. (SCI Expanded; impact factor 0.402)
 21. Chin-Wen Ho, Sun-Yuan Hsieh, and Gen-Huey Chen, "Hamiltonian-Laceability of Star Graphs," *Proceedings of the International Symposium on Parallel Algorithms and Architectures (ISPAN)*, pp. 112-117, 1997, IEEE Computer Society Press. (EI)
 22. Chin-Wen Ho, Sun-Yuan Hsieh, and Gen-Huey Chen, "An efficient parallel strategy for computing k -terminal reliability and finding most vital edges in 2-trees and partial 2-trees," *Proceedings of the 11th International Parallel Processing Symposium (IPPS)*, pp. 603-607, 1997, IEEE Computer Society Press. (EI)
 23. Sun-Yuan Hsieh, Chin-Wen Ho, and Gen-Huey Chen, "Fault-tolerant ring embedding in faulty arrangement graphs," *Proceedings of the International Conference on Parallel and Distributed Systems (ICPADS)*, pp.744-749, 1997, IEEE Computer Society Press. (EI)
 24. Chin-Wen Ho, Sun-Yuan Hsieh, and Gen-Huey Chen, "Parallel decomposition of generalized-series-parallel graphs," *Proceedings of the International Conference on Parallel and Distributed Processing Technique and Application (PDPTA)*, pp. 890-896, 1997.
 25. Sun-Yuan Hsieh, Chin-Wen Ho, Tsan-Sheng Hsu, Ming-Tat Ko, and Gen-Huey Chen, "Efficient parallel algorithms on distance-hereditary graphs," *Proceedings of the 1997 International Conference on Parallel Processing (ICPP)*, pp. 20-23, IEEE Computer Society Press. (EI)
 26. Sun-Yuan Hsieh, Gen-Huey Chen, and Chin-Wen Ho, "Embed longest rings onto star graphs with vertex faults," *Proceedings of the 1998 International Conference on Parallel Processing (ICPP)*, pp. 140-147, IEEE Computer Society Press. (EI)
 27. Maw-Shang Chang, Sun-Yuan Hsieh, and Gen-Huey Chen, "Dynamic programming on distance-hereditary graphs," *Proceedings of the 8th International Symposium on Algorithms and Computation (ISAAC), Lecture*

Notes in Computer Science 1350, pp. 344-353, 1997. (SCI Expanded, impact factor 0.402)

28. Sun-Yuan Hsieh and Chin-Wen Ho, "An efficient parallel strategy for recognizing series-parallel graphs," *Proceedings of the 5th International Symposium on Algorithms and Computation (ISAAC), Lecture Notes in Computer Science* 834, pp. 496-504, 1994. (SCI Expanded, impact factor 0.402)

HONOR

1. Who's Who in Science and Engineering, 2005-2006 (8th Edition)
2. 2000 Outstanding Scientists of the 21st Century (International Biographical Association, International Biographical Centre, England), 2005
3. Great Minds of the 21st Century (American Biographical Institute, Inc), 2005

EXPERIENCES

1. *Associate professor* at the Department of Computer Science and Information Engineering, National Chi Nan University, 2003~present.
2. *Assistant professor* at the Department of Computer Science and Information Engineering, National Cheng Kung University, 2002~2003.
3. *Visiting Scholar* at Institute of Information Science, Sinica, 2001~2003.
4. *Assistant professor* at the Department of Computer Science and Information Engineering, National Chi Nan University, 2000~2002.

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