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YING-PING CHEN

RESEARCH INTERESTS

Evolutionary Computation, with an emphasis on theories, working principles, and potential real-world applications; Understanding **Intelligence** from computational perspectives and via computational mechanisms.

RESEARCH EXPERIENCE

Aug. 2014 – Present Professor
National Yang Ming Chiao Tung University, HsinChu City, Taiwan
(Merged with National Yang-Ming University in 2021)

Aug. 2009 – Jul. 2014 Associate Professor

Aug. 2004 – Jul. 2009 Assistant Professor
Department of Computer Science
National Chiao Tung University, HsinChu City, Taiwan

Sep. 2002 – May 2004 Graduate Assistant
Digital Image Laboratory, Grainger Engineering Library
Library Research and Publication, University of Illinois at Urbana-Champaign

Jan. 2001 – Aug. 2002 Graduate Research Assistant
Illinois Genetic Algorithms Laboratory
Department of General Engineering, University of Illinois at Urbana-Champaign

Aug. 1999 – May 2000 Graduate Research Assistant
Hierarchical Distributed Dynamic Indexing Group
National Center for Supercomputing Applications, University of Illinois at Urbana-Champaign

EDUCATION

Aug. 1999 – May 2004 Ph.D. in Computer Science
Department of Computer Science
University of Illinois at Urbana-Champaign, Illinois, USA
Dissertation: Extending the Scalability of Linkage Learning Genetic Algorithms: Theory and Practice
Advisor: Professor David E. Goldberg, Department of General Engineering

Sep. 1995 – May 1997 Master of Science
Graduate Institute of Computer Science and Information Engineering
National Taiwan University, Taipei City, Taiwan
Thesis: Stochastic Sketching: A New Method for Global Optimization
Advisor: Professor Cheng-Yan Kao

Sep. 1991 – May 1995 Bachelor of Science in Engineering
Department of Computer Science and Information Engineering
National Taiwan University, Taipei City, Taiwan

HONORS AND AWARDS

2024 National Yang Ming Chiao Tung University Excellent Performance Honor

2023 National Yang Ming Chiao Tung University Excellent Performance Honor

2022 National Yang Ming Chiao Tung University Excellent Performance Honor
National Chiao Tung University Excellent Mentor Award

2021 National Yang Ming Chiao Tung University Excellent Performance Honor

2020 National Chiao Tung University Outstanding Performance Honor: Teaching

2019 National Chiao Tung University Outstanding Performance Honor: Teaching
National Chiao Tung University Excellent Teaching Award
National Chiao Tung University Excellent Mentor Award

2018 National Chiao Tung University Outstanding Performance Honor: Research
National Chiao Tung University Excellent Teaching Award

2017 National Chiao Tung University Outstanding Performance Honor: Research

2016 National Chiao Tung University Outstanding Performance Honor: Research
National Chiao Tung University Best Mentor Award
College of Computer Science, NCTU Excellent Teaching Award

2015 National Chiao Tung University Outstanding Performance Honor: Research
National Chiao Tung University Excellent Teaching Award

2014 Best paper award: The 28th IEEE International Conference on Advanced Information Networking and Applications (AINA-2014)
College of Computer Science, NCTU Excellent Teaching Award
National Chiao Tung University Outstanding Performance Honor: Service

2013 National Chiao Tung University Outstanding Performance Honor: Service

2012 National Chiao Tung University Outstanding Performance Honor: Research

2011 National Chiao Tung University Outstanding Performance Honor: Research

2009 National Chiao Tung University Excellent Teaching Award

2008 National Chiao Tung University Outstanding Performance Honor: Research
Best paper award nomination: ACM SIGEVO Genetic and Evolutionary Computation Conference (ACM SIGEVO GECCO)

2007 National Chiao Tung University Outstanding Performance Honor: Research
Best paper award nomination: ACM SIGEVO Genetic and Evolutionary Computation Conference (ACM SIGEVO GECCO)

2004 Genetic and Evolutionary Computation Conference 2004 (GECCO-2004) Student Travel Grant Award
IEEE Neural Network Society (IEEE NNS) 2004 Student Travel Grant

2003 Genetic and Evolutionary Computation Conference 2003 (GECCO-2003) Student Travel Grant Award

2002 Best paper award of the Graduate Student Workshop of Genetic and Evolutionary Computation Conference 2002 (GECCO-2002)
Genetic and Evolutionary Computation Conference 2002 (GECCO-2002) Student Travel Grant Award

1996 The Ministry of Education Fellowship, Taiwan

1995 The Ministry of Education Scholarship, Taiwan

1994 The Presidential Award of the National Taiwan University

PROFESSIONAL ACTIVITIES

Organizations

Jan. 2013 – Present Member of the Institute of Electronics, Information and Communication Engineers (IEICE)

Apr. 2004 – Present Member of the Institute of Electrical and Electronics Engineers, Inc. (IEEE)

- IEEE Computational Intelligence Society (CIS)
- IEEE CIS Emergent Technologies Task Force on Creative Intelligence (2015 – Present)
- IEEE CIS Emergent Technologies Task Force on Memetic Computing (2010 – Present)
- IEEE CIS Emergent Technologies Technical Committee (ETTC; 2007 – 2009)
- IEEE Communications Society (ComSoc; 2011 – 2013)

Nov. 1999 – Present Member of the Association for Computing Machinery (ACM)

- ACM Special Interest Group for Genetic and Evolutionary Computation (SIGEVO)

Jul. 2000 – Dec. 2004 Member of the International Society for Genetic and Evolutionary Computation (ISGEC)

- Became ACM SIGEVO on Jan. 1, 2005

Conferences

2024 Program committee: GECCO-2024, PPSN 2024, EvoAPPS 2024, ICCC-2024

2023 Program committee: GECCO-2023, EvoAPPS 2023, ICCC-2023, LOD 2023

2022 Program committee: AAAI-2022, GECCO-2022, PPSN 2022, EvoAPPS 2022, ICCC-2022, LOD 2022, TAAI 2022

2021 Program committee: AAAI-2021, GECCO-2021, EvoAPPS 2021, LOD 2021

2020 International advisory board: ISMSI 2020
Program committee: AAAI-2020, IJCAI-2020, ECAI 2020, GECCO-2020, PPSN 2020, EvoAPPS 2020, ICICT 2020, LOD 2020, ACN'20, TAAI 2020

2019 Organizer: TAEA 2019 (Co-Chair)
Program committee: AAAI-2019, GECCO-2019, LOD 2019, SEMCCO 2019 & FANCCO 2019, ACN'19, ICACI 2019, TAAI 2019

2018 Program committee: GECCO-2018, PPSN 2018, LOD 2018, TAAI 2018

2017 Program committee: GECCO-2017, EvoNUM 2017, MOD 2017, MC 2017 at CEC 2017, SEAL 2017, IBICA 2017, NaBIC 2017, WICT 2017

2016 Organizer: TAAI 2016 (Workshop Chair), TAEA 2016 (Co-Chair)
Program committee: GECCO-2016, EvoNUM 2016, PPSN 2016, MOD 2016, NaBIC 2016, HIS 2016, MBEA 2016 at IEEE SSCI 2016, ISDA 2016, WICT 2016, SoCPaR 2016

2015 Organizer: TAEA 2015 (Co-Chair)
Program committee: GECCO-2015, EvoNUM 2015, SoCPaR 2015, IES 2015, HIS 2015, TAAI 2015, WICT 2015

2014 Organizer: TAEA 2014 (Co-Chair)
Program committee: GECCO-2014, EvoNUM 2014, NaBIC 2014, SoCPaR 2014, PPSN 2014, IES 2014, WICT 2014, TAAI 2014, MC 2014 at IEEE SSCI 2014, HIS 2014, SEAL 2014

2013 Organizer: TAEA 2013 (Co-Chair), SIDM 2013 (Co-Chair)
Program committee: GECCO-2013, Special Session on Evolutionary Algorithms with Statistical & Machine Learning Techniques at CEC 2013, EvoNUM 2013, FoCI 2013 and MC 2013 at IEEE SSCI 2013, BioCom'13, ECAL 2013, IDEAL'13, HIS 2013, ISDA 2013, WICT 2013

2012 Organizer: TAEA 2012 (Co-Chair)
Program committee: EvoNUM 2012, PPSN 2012, Special Sessions on Evolutionary Algorithms with Statistical & Machine Learning Techniques, Evolutionary Computation in Scheduling, and Evolutionary Computational Intelligence in Communications and Networking at WCCI 2012 (CEC 2012), TAAI 2012, ICASCE 2012, IBICA-2012, ISDA'12, HIS'12

2011 Organizer: TAEA 2011 (Co-Chair)
Program committee: GECCO-2011, TAAI 2011, EvoNUM 2011, DEIT 2011, FoCI-2011, HIS'11

2010 International Steering Committee: ICCP-2010
Organizer: TAAI 2010 (Workshop Co-Chair), TAEA 2010 (Co-Chair)
Program committee: GECCO-2010, WCCI 2010 (CEC 2010), EvoNUM 2010, NaBIC 2010, SoCPaR 2010, PPSN 2010, ICEC 2010

2009 Organizer: GECCO-2009 (Late Breaking Papers Chair)
Program committee: GECCO-2009, CEC 2009, EvoNUM 2009, ICEC 2009, NaBIC 09, SoCPaR 2009

2008 Program committee: GECCO-2008, EvoNUM 2008, SEAL 2008, ISICA 2008, WSSEC08
Technical committee: WCCI 2008 (CEC 2008)

2007 Organizer: LEC 2007 at CEC 2007
Program committee: GECCO-2007, CEC 2007, ISICA 2007

2006 Program committee: GECCO-2006
Technology committee: ODEA at SEAL 2006

2005 Program committee: GECCO-2005, MAM at IEEE EEE05

2004 Program committee: GECCO-2004

2003 Program committee: GECCO-2003

Publications

- Associate Editor: IEEE Computational Intelligence Magazine (2023/01 – 2024/12), Swarm and Evolutionary Computation (2015/05 – Present), Information Sciences (2009/02 – Present)
- Member of the Editorial Board: Memetic Computing (2007/10 – 2016, 2020/03 – Present), International Journal of Applied Evolutionary Computation (2008/04 – Present), International Journal of Information Science and Computer Application (2011/03 – 2016)
- Guest Editor: International Journal of Information Systems for Logistics and Management: Special Issue on Computational Intelligence and Soft Computing (2005)

ACADEMIC PUBLICATIONS

Journal Papers

1. Kuo, W.-L., Chang, W.-C., Dai, T.-S., Chen, Y.-p., & Chang, H.-H. (2022). Improving pairs trading strategies using two-stage deep learning methods and analyses of time (in)variant inputs for trading performance. *IEEE Access*, *10*, 97030–97046. doi: 10.1109/ACCESS.2022.3204056. (SCI, EI).
2. Handoyo, S., Chen, Y.-p., Irianto, G., & Widodo, A. (2021). The varying threshold values of logistic regression and linear discriminant for classifying fraudulent firm. *Mathematics and Statistics*, *9*(2), 135–143. doi: 10.13189/ms.2021.090207.

3. Handoyo, S., & Chen, Y.-p. (2020). The developing of fuzzy system for multiple time series forecasting with generated rule bases and optimized consequence part. *International Journal of Engineering Trends and Technology*, *68*(12), 118–122. doi: 10.14445/22315381/IJETT-V68I12P220.

4. Chang, C.-y., & Chen, Y.-p. (2020). AntsOMG: A framework aiming to automate creativity and intelligent behavior with a showcase on cantus firmus composition and style development. *Electronics*, *9*(8), 1212. doi: 10.3390/electronics9081212. (SCI). GitHub Repo.

5. Lin, J.-C., Leu, F.-Y., & Chen, Y.-p. (2016). Impacts of task re-execution policy on MapReduce jobs. *The Computer Journal*, *59*(5), 701–714. doi: 10.1093/comjnl/bxv105. (SCI).

6. Lee, M.-C., Leu, F.-Y., & Chen, Y.-p. (2015). Pareto-based cache replacement for YouTube. *World Wide Web*, *18*(6), 1523–1540. doi: 10.1007/s11280-014-0318-9. (SCI, EI).

7. Lin, J.-C., Leu, F.-Y., & Chen, Y.-p. (2015a). PAReS: A proactive and adaptive redundant system for enhancing MapReduce job completion reliability and service quality. *Journal of Information Science and Engineering*, *31*(5), 1775–1793. Download. (SCI).

8. Lin, J.-C., Leu, F.-Y., & Chen, Y.-p. (2015b). Analyzing job completion reliability and job energy consumption for a heterogeneous MapReduce cluster under different intermediate-data replication policies. *Journal of Supercomputing*, *71*(5), 1657–1677. doi: 10.1007/s11227-014-1286-7. (SCI, EI).

9. Lin, J.-C., Leu, F.-Y., & Chen, Y.-p. (2015c). Impact of MapReduce policies on job completion reliability and job energy consumption. *IEEE Transactions on Parallel and Distributed Systems*, *26*(5), 1364–1378. doi: 10.1109/TPDS.2014.2374600. (SCI, EI).

10. Chen, C.-M., & Chen, Y.-p. (2014a). Connection choice codes. *IEICE Transactions on Communications*, *E97-B*(7), 1350–1357. doi: 10.1587/transcom.E97.B.1350. (SCI, EI).

11. Chen, C.-H., & Chen, Y.-p. (2014b). Quality analysis of discretization methods for estimation of distribution algorithms. *IEICE Transactions on Information and Systems*, *E97-D*(5), 1312–1323. doi: 10.1587/transinf.E97.D.1312. (SCI, EI).

12. Chen, C.-M., Chen, Y.-p., Shen, T.-C., & Zao, J. K. (2013). A practical optimization framework for the degree distribution in LT codes. *IEICE Transactions on Communications*, *E96-B*(11), 2807–2815. doi: 10.1587/transcom.E96.B.2807. (SCI, EI).

13. Lin, J.-C., Leu, F.-Y., & Chen, Y.-p. (2013). Analyzing job completion reliability and job energy consumption for a general MapReduce infrastructure. *Journal of High Speed Networks*, *19*(3), 203–214. doi: 10.3233/JHS-130473. (EI).

14. Lin, J.-Y., & Chen, Y.-p. (2013). Population sizing for inductive linkage identification. *International Journal of Systems Science*, *44*(1), 1–13. doi: 10.1080/00207721.2011.577246. (SCI, EI).

15. Chen, Y.-p., Chuang, C.-Y., & Huang, Y.-W. (2012). Inductive linkage identification on building blocks of different sizes and types. *International Journal of Systems Science*, *43*(12), 2202–2213. doi: 10.1080/00207721.2011.566639. (SCI, EI).

16. Lee, M.-C., Leu, F.-Y., & Chen, Y.-p. (2012). PFRF: An adaptive data replication algorithm based on star-topology data grids. *Future Generation Computer Systems*, *28*(7), 1045–1057. doi: 10.1016/j.future.2011.08.015. (SCI, EI).

17. Chen, C.-H., & Chen, Y.-p. (2011). Convergence time analysis of particle swarm optimization based on particle interaction. *Advances in Artificial Intelligence*, *2011*(204750), 1–7. doi: 10.1155/2011/204750.

18. Lin, J.-Y., & Chen, Y.-p. (2011). Analysis on the collaboration between global search and local search in memetic computation. *IEEE Transactions on Evolutionary Computation*, *15*(5), 608–623. doi: 10.1109/TEVC.2011.2150754. (SCI, EI).

19. Jiang, P., & Chen, Y.-p. (2011). Free lunches on the discrete Lipschitz class. *Theoretical Computer Science*, *412*(17), 1614–1628. doi: 10.1016/j.tcs.2010.12.028. (SCI, EI).

20. Chuang, C.-Y., & Chen, Y.-p. (2010). Sensibility of linkage information and effectiveness of estimated distributions. *Evolutionary Computation*, *18*(4), 547–579. doi: 10.1162/EVCO_a_00010. (SCI, EI).

21. Chen, Y.-p., & Chen, C.-H. (2010). Enabling the extended compact genetic algorithm for real-parameter optimization by using adaptive discretization. *Evolutionary Computation*, *18*(2), 199–228. doi: 10.1162/evco.2010.18.2.18202. (SCI).

22. Chen, Y.-p., & Jiang, P. (2010). Analysis on the facet of particle interaction in particle swarm optimization. *Theoretical Computer Science*, *411*(21), 2101–2115. doi: 10.1016/j.tcs.2010.03.003. (SCI, EI).

23. Chen, Y.-p., & Lin, Y.-y. (2009). Controlling the movement of crowds in computer graphics by using the mechanism of particle swarm optimization. *Applied Soft Computing*, *9*(3), 1170–1176. doi: 10.1016/j.asoc.2009.03.004. (SCI, EI).

24. Chen, Y.-p., Peng, W.-C., & Jian, M.-c. (2007). Particle swarm optimization with recombination and dynamic linkage discovery. *IEEE Transactions on Systems, Man, and Cybernetics–Part B: Cybernetics*, *37*(6), 1460–1470. doi: 10.1109/TSMCB.2007.904019. (SCI, EI).

25. Chen, Y.-p., & Goldberg, D. E. (2005). Convergence time for the linkage learning genetic algorithm. *Evolutionary Computation*, *13*(3), 279–302. doi: 10.1162/1063656054794806. (SCI).

26. Horng, J.-T., Chen, Y.-p., & Kao, C.-Y. (2001). A theoretical aspect of a stochastic sketching method for global optimization. *Journal of Information Science and Engineering*, *17*(1), 47–71. Download. (SCI).

27. Chen, Y.-p., Horng, J.-T., & Kao, C.-Y. (1999). Stochastic sketching: A new method for global optimization. *Soft Computing*, *3*(2), 101–110. doi: 10.1007/s005000050058. (SCI).

Conference and Workshop Papers

28. Chang, C.-y., & Chen, Y.-p. (2023). Investigating style forming and twisting by adapting AntsOMG for composing second species counterpoint. In *Proceedings of 2023 IEEE Congress on Evolutionary Computation (CEC 2023)* (pp. 1–8). doi: 10.1109/CEC53210.2023.10253974. (EI). GitHub Repo.

29. Chang, C.-y., & Chen, Y.-p. (2021a). In the name of creativity: En route to inspiring machines. In *Proceedings of 2021 International Conference on Computational Creativity (ICCC'21)* (pp. 400–404). GitHub Repo.

30. Chang, C.-y., & Chen, Y.-p. (2021b). Contrapuntal composition and autonomous style development of organum motets by using AntsOMG. In *Proceedings of 2021 IEEE Congress on Evolutionary Computation (CEC 2021)* (pp. 2023–2030). doi: 10.1109/CEC45853.2021.9504881. (EI). GitHub Repo.

31. Lo, F.-Y., Chen, C.-H., & Chen, Y.-p. (2020). Shrinking counterexamples in property-based testing with genetic algorithms. In *Proceedings of 2020 IEEE Congress on Evolutionary Computation (CEC 2020)* (pp. 1–8). doi: 10.1109/CEC48606.2020.9185807. (EI). GitHub Repo.

32. Lo, F.-Y., Chen, C.-H., & Chen, Y.-p. (2019). Genetic algorithms as shrinkers in property-based testing. In *Proceedings of 2019 ACM SIGEVO Genetic and Evolutionary Computation Conference Companion (GECCO'19 Companion)* (pp. 291–292). doi: 10.1145/3319619.3322004. (EI).

33. Chang, C.-y., & Chen, Y.-p. (2019). Fusing creative operations into evolutionary computation for composition: From a composer's perspective. In *Proceedings of 2019 IEEE Congress on Evolutionary Computation (CEC 2019)* (pp. 2113–2120). doi: 10.1109/CEC.2019.8790335. (EI). GitHub Repo.

34. Huang, S.-Y., & Chen, Y.-p. (2017). Proving theorems by using evolutionary search with human involvement. In *Proceedings of 2017 IEEE Congress on Evolutionary Computation (CEC 2017)* (pp. 1495–1502). doi: 10.1109/CEC.2017.7969480. (EI). GitHub Repo.

35. Hsu, W.-L., & Chen, Y.-p. (2016). Learning to select actions in StarCraft with genetic algorithms. In *Proceedings of the 2016 Conference on Technologies and Applications of Artificial Intelligence (TAAI 2016)* (pp. 270–277). doi: 10.1109/TAAI.2016.7880180. (EI). GitHub Repo.

36. Yang, L.-A., Liu, J.-P., Chen, C.-H., & Chen, Y.-p. (2016). Automatically proving mathematical theorems with evolutionary algorithms and proof assistants. In *Proceedings of 2016 IEEE Congress on Evolutionary Computation (CEC 2016)* (pp. 4421–4428). doi: 10.1109/CEC.2016.7744352. (EI). GitHub Repo.

37. Lee, M.-C., Leu, F.-Y., & Chen, Y.-p. (2015). ReMBF: A reliable multicast brute-force co-allocation scheme for multi-user data grids. In *Proceedings of 2015 IEEE 39th Annual Computer Software and Applications Conference (COMPSAC 2015)*, Volume 2 (pp. 774–784). doi: 10.1109/COMPSAC.2015.34. (EI).

38. Tseng, H.-w., & Chen, Y.-p. (2015). Artistic image processing with cellular automata and evolutionary algorithms. In *Proceedings of 2015 IEEE Congress on Evolutionary Computation (CEC 2015)* (pp. 2153–2159). doi: 10.1109/CEC.2015.7257150. (EI). GitHub Repo.

39. Lee, M.-C., Leu, F.-Y., & Chen, Y.-p. (2014). Developing a performance-analysis model for a star-topology data grid from multi-user perspective. In *Proceedings of The 6th IEEE International Conference on Intelligent Networking and Collaborative Systems (INCoS 2014)* (pp. 242–248). doi: 10.1109/INCoS.2014.83. (EI).

40. Tsai, P.-C., Chen, C.-M., & Chen, Y.-p. (2014a). A novel evaluation function for LT codes degree distribution optimization. In *Proceedings of 2014 IEEE Congress on Evolutionary Computation (CEC 2014)* (pp. 3030–3035). doi: 10.1109/CEC.2014.6900609. (EI).

41. Tsai, P.-C., Chen, C.-M., & Chen, Y.-p. (2014b). PSO-based evacuation simulation framework. In *Proceedings of 2014 IEEE Congress on Evolutionary Computation (CEC 2014)* (pp. 1944–1950). doi: 10.1109/CEC.2014.6900600. (EI). GitHub Repo.

42. Lee, M.-C., Leu, F.-Y., & Chen, Y.-p. (2014). Cache replacement algorithms for YouTube. In *Proceedings of the 28th IEEE International Conference on Advanced Information Networking and Applications (AINA-2014)* (pp. 743–750). doi: 10.1109/AINA.2014.91. (Best paper award, EI).

43. Lin, J.-C., Leu, F.-Y., Chen, Y.-p., & Munawar, W. (2014). Impact of MapReduce task re-execution policy on job completion reliability and job completion time. In *Proceedings of the 28th IEEE International Conference on Advanced Information Networking and Applications (AINA-2014)* (pp. 712–718). doi: 10.1109/AINA.2014.87. (EI).

44. Lee, M.-C., Leu, F.-Y., & Chen, Y.-p. (2013). TSR: Topology reduction from tree to star data grids. In *Proceedings of the Seventh International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing (IMIS-2013)* (pp. 678–683). doi: 10.1109/IMIS.2013.122. (EI).

45. Lin, J.-Y., & Chen, Y.-p. (2013). On the effect of population size and selection mechanism from the viewpoint of collaboration between exploration and exploitation. In *Proceedings of 2013 IEEE Workshop on Memetic Computing at Symposium Series on Computational Intelligence (IEEE MC at SSCI 2013)* (pp. 16–23). doi: 10.1109/MC.2013.6608202. (EI).

46. Lin, J.-C., Leu, F.-Y., Lee, M.-C., & Chen, Y.-p. (2013). Deriving job completion reliability and job energy consumption for a general MapReduce infrastructure from single-job perspective. In *Proceedings of the 27th IEEE International Conference on Advanced Information Networking and Applications (AINA-2013)* (pp. 1642–1647). doi: 10.1109/WAINA.2013.10. (EI).

47. Tsai, P.-C., Chen, C.-M., & Chen, Y.-p. (2012). Sparse degrees analysis for LT codes optimization. In *Proceedings of 2012 IEEE Congress on Evolutionary Computation (CEC 2012)* (pp. 2463–2468). doi: 10.1109/CEC.2012.6252861. (EI).

48. Lin, J.-Y., & Chen, Y.-p. (2012). When and what kind of memetic algorithms perform well. In *Proceedings of 2012 IEEE Congress on Evolutionary Computation (CEC 2012)* (pp. 2716–2723). doi: 10.1109/CEC.2012.6252894. (EI).

49. Huang, Y.-w., & Chen, Y.-p. (2010). Detecting general problem structures with inductive linkage identification. In *Proceedings of the 2010 Conference on Technologies and Applications of Artificial Intelligence (TAAI 2010)* (pp. 508–515). doi: 10.1109/TAAI.2010.86. (EI).

50. Lin, J.-H., & Chen, Y.-p. (2010). XCS with bit masks. In *Proceedings of the 2010 Conference on Technologies and Applications of Artificial Intelligence (TAAI 2010)* (pp. 516–523). doi: 10.1109/TAAI.2010.87. (EI).

51. Chen, Y.-p. (2010). Estimation of distribution algorithms: Basic ideas and future directions. In *Proceedings of World Automation Congress 2010 (WAC 2010)* (pp. IFMIP–152). Download.

52. Chen, C.-M., Chen, Y.-p., Shen, T.-C., & Zao, J. (2010a). On the optimization of degree distributions in LT codes with covariance matrix adaptation evolution strategy. In *Proceedings of 2010 IEEE Congress on Evolutionary Computation (CEC 2010)* (pp. 3531–3538). doi: 10.1109/CEC.2010.5586202. (EI).

53. Chen, C.-M., Chen, Y.-p., Shen, T.-C., & Zao, J. (2010b). Optimizing degree distributions in LT codes by using the multiobjective evolutionary algorithm based on decomposition. In *Proceedings of 2010 IEEE Congress on Evolutionary Computation (CEC 2010)* (pp. 3635–3642). doi: 10.1109/CEC.2010.5586340. (EI).

54. Huang, Y.-W., & Chen, Y.-p. (2009). On the detection of general problem structures by using inductive linkage identification. In *Proceedings of ACM SIGEVO Genetic and Evolutionary Computation Conference 2009 (GECCO-2009)* (pp. 1853–1854). doi: 10.1145/1569901.1570200. (EI).

55. Chen, C.-M., Chen, Y.-p., & Zhang, Q. (2009). Enhancing MOEA/D with guided mutation and priority update for multi-objective optimization. In *Proceedings of 2009 IEEE Congress on Evolutionary Computation (CEC 2009)* (pp. 209–216). doi: 10.1109/CEC.2009.4982950. (EI).

56. Chuang, C.-Y., & Chen, Y.-p. (2008a). Recognizing problem decomposition with inductive linkage identification: Population requirement vs. subproblem complexity. In *Proceedings of the Joint 4th International Conference on Soft Computing and Intelligent Systems and 9th International Symposium on advanced Intelligent Systems (SCIS & ISIS 2008)* (pp. 670–675). Download. (Invited).

57. Chuang, C.-Y., & Chen, Y.-p. (2008b). On the effectiveness of distributions estimated by probabilistic model building. In *Proceedings of ACM SIGEVO Genetic and Evolutionary Computation Conference 2008 (GECCO-2008)* (pp. 391–398). doi: 10.1145/1389095.1389169. (EI).

58. Liou, J.-J., & Chen, Y.-p. (2008). Adaptive discretization on multidimensional continuous search spaces. In *Proceedings of ACM SIGEVO Genetic and Evolutionary Computation Conference 2008 (GECCO-2008)* (pp. 977–984). doi: 10.1145/1389095.1389280. (EI).

59. Chuang, C.-Y., & Chen, Y.-p. (2007). Linkage identification by perturbation and decision tree induction. In *Proceedings of 2007 IEEE Congress on Evolutionary Computation (CEC 2007)* (pp. 357–363). doi: 10.1109/CEC.2007.4424493. (CPCI-S, EI).

60. Lin, Y.-y., & Chen, Y.-p. (2007). Crowd control with swarm intelligence. In *Proceedings of 2007 IEEE Congress on Evolutionary Computation (CEC 2007)* (pp. 3321–3328). doi: 10.1109/CEC.2007.4424900. (CPCI-S, EI).

61. Hsieh, C.-T., Chen, C.-M., & Chen, Y.-p. (2007). Particle swarm guided evolution strategy. In *Proceedings of ACM SIGEVO Genetic and Evolutionary Computation Conference 2007 (GECCO-2007)* (pp. 650–657). doi: 10.1145/1276958.1277096. (EI).

62. Chen, H.-W., & Chen, Y.-p. (2007a). Introducing fault tolerance to XCS. In *Proceedings of ACM SIGEVO Genetic and Evolutionary Computation Conference 2007 (GECCO-2007)* (pp. 1871). doi: 10.1145/1276958.1277330. (EI).

63. Chen, C.-H., & Chen, Y.-p. (2007b). Real-coded ECGA for economic dispatch. In *Proceedings of ACM SIGEVO Genetic and Evolutionary Computation Conference 2007 (GECCO-2007)* (pp. 1920–1927). doi: 10.1145/1276958.1277343. (EI).

64. Hung, P.-C., Chen, Y.-p., & Zan, H. W. (2007). Characteristic determination for solid state devices with evolutionary computation: A case study. In *Proceedings of ACM SIGEVO Genetic and Evolutionary Computation Conference 2007 (GECCO-2007)* (pp. 2029–2036). doi: 10.1145/1276958.1277357. (EI).

65. Jian, M.-C., & Chen, Y.-p. (2006). Introducing recombination with dynamic linkage discovery to particle swarm optimization. In *Proceedings of ACM SIGEVO Genetic and Evolutionary Computation Conference 2006 (GECCO-2006)* (pp. 85–86). doi: 10.1145/1143997.1144010. (CPCI-S, EI).

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