Curriculum Vitae

Name Xiaodong Li

Contact

School of Computing Technologies
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Education

Ph.D., Artificial Intelligence, July 1998
University of Otago, Dunedin, New Zealand

Dip.Com., Information Science, December 1992
University of Otago, Dunedin, New Zealand

B.Sc., Information Science, August 1988
Xidian University, Xi'an, China

Employment

1/2017–present	Professor, School of Computing Technologies, RMIT University, Melbourne, Australia
1/2013–12/2016	Associate Professor, School of Science (CSSE), RMIT University, Melbourne, Australia
1/2005–12/2012	Senior Lecturer, School of CS & IT, RMIT University, Melbourne, Australia
1/2001–12/2004	Lecturer, School of Computer Science and IT, RMIT University, Melbourne, Australia
5/1999–12/2000	Lecturer, Gippsland School of Computing, Monash University, Melbourne, Australia
1/1997–5/1999	Associate Lecturer, School of Information and Environmental Sciences, Charles Sturt University, Albury, NSW, Australia

Professional Memberships

IEEE Computational Intellignece Society (CIS) Distinguished Lecturer (2024 - 2026).

Member, ARC (Australian Research Council) College of Experts (2023 - 2025).

IEEE Fellow (from 2020), Member of IEEE Computational Intelligence Society (CIS).

Chair, IEEE CIS Task Force on Large-Scale Global Optimization (2012 - 2016).

Vice Chair, IEEE CIS Task Force on Swarm Intelligence (2012 - 2016).

Vice Chair, IEEE CIS Task Force on Multi-modal Optimization (2015 - present).

Vice Chair, IEEE Computational Intelligence Chapter, Victorian Section, Australia (2012 - 2016).

Member, Evolutionary Computation Technical Committee (ECTC), IEEE CIS.

Member, The Technical Committee on Soft Computing, Systems, Man and Cybernetics Society, IEEE.

Member, Steering committee of Simulated Evolution And Learning (SEAL).

Scientific Advisor, Scientific Advisory Board of the *Complexica* company (an optimization/planning solution provider).

Visiting research fellow at CERCIA, University of Birmingham (12 July - 19 September 2008; 13 - 22 May 2009; 28 August - 11 September 2009), funded by an EPSRC grant.

Journal Editorship

Associate Editor for the journal of *IEEE Transactions on Evolutionary Computation* (2008 - 2021).

Associate Editor for the journal of *Swarm Intelligence* (Springer).

Associate Editor for the *International Journal of Swarm Intelligence Research* (IJSIR).

Member of the editorial board of the journal of *Softcomputing* (Springer).

Member of IASR Board of Editors for the Journal of *Advanced Research in Evolutionary Algorithms* (JAREA).

Guest editor, special issue on "Nature-Inspired Algorithms for Large Scale Global Optimization", *Information Sciences*, September 2015.

Guest editor, special issue on "Swarm Intelligence", *IEEE Transactions on Evolutionary Computation*, August 2009.

Guest editor, special issue on "Evolutionary Optimization and Learning", *Journal of Soft Computing* (to appear).

Guest editor, special issue on "Simulated Evolution and Learning", *Journal of Evolutionary Intelligence*, Vol.2, 2009.

Guest editor, special issue on "Evolutionary Optimization", *Journal of Computer Science Technology*, Vol.23, No.1, January 2008.

Guest editor, special issue on "Simulated Evolution and Learning", *International Journal of Computational Intelligence and Applications* (IJCIA), World Scientific Press, Vol.7, No.2, June 2008,

Guest editor, special issue on "Theoretical Foundations of Evolutionary Computation", *Journal of Genetic Programming and Evolvable Machines*, Springer, Vol.9, No.2, June 2008.

Guest editor, special issue on "Evolutionary Learning and Optimization", *Connection Science*, Vol.19, No.4, December 2007.

Citation Stats

h-index: 64; total citations: 18,000+ (according to Google Scholar, 15/03/2025).

Research Awards

Recipient of **2013 ACM SIGEVO Impact Award**.

2017 IEEE Transactions on Evolutionary Computation Outstanding Paper Award.

Winner of IEEE CEC'2019 Large-Scale Global Optimization (LSGO) competition, Wellington, New Zealand, 11 June 2019.

IEEE Fellow (from 2020), "**for contributions to large-scale and particle swarm optimization**".

Research Supervision

I have successfully supervised to completion 17 PhD students (as the first supervisor) and 11 PhD students (as the 2nd supervisor). Currently I am supervising 5 PhD students as the first supervisor, and co-supervising 5 other PhD students. I have also supervised several master and honours students.

Competitive National Research Grants

1. Dr Xiaodong Li (RMIT), Prof. Xin Yao (University of Birmingham), "Novel Decomposition Methods for Large Scale Optimization", ARC Discovery Grant (DP120102205), 2012 - 2014 ($317K).
2. Prof. Athman Bouguettaya, Dr Margaret Hamilton, Dr Flora Salim, Dr Xiaodong Li, Prof. Xinghuo Yu, and Prof. William Appelbe, "An integrated and real-time passenger travel and public transport service information system", ARC Linkage Grant (LP120200305), 2012 - 2015 ($510K).
3. Dr Xiaodong Li, Dr Fabio Zambetta, Dr Florian Mueller, Mr Clark J. Kirby, "Enhancing the Australian theme park experience by harnessing virtual-physical play", ARC Linkage Grant (LP130100743), 2013 - 2016 ($300K).
4. Prof Jiyuan Yu, Dr Chi Pok Cheung, Dr Xiaodong Li, Dr Akbar Afaghi-Khatibi,Dr Samuel J. Meure, Mr Andrew Glynn, "Developing an integrated optimisation platform for innovative design of composite fabrication process", ARC Linkage Grant (LP130100236), 2013 - 2016 ($205K).
5. Prof. Xiaodong Li, Prof. Andreas Ernest, Prof. Kalyanmoy Deb, "Hybrid methods with decomposition for large scale optimization", ARC Discovery Grant (DP180101170), 2018 - 2020 ($352K).
6. Prof. Tapabrata Ray, Prof. Xiaodong Li, Prof. Juergen Branke, "A novel and efficient approach for optimisation involving iterative solvers", ARC Discovery Grant (DP190101271), 2019 - 2021 ($360K).
7. Prof. Xiaodong Li, Dr Jeffrey Chan, "Machine learning techniques for fuel loss detection at service stations", ARC Linkage Grant (LP190100991), 2020 - 2022 ($315K).
8. Prof. Ivan Cole, Prof. Xiaodong Li, Prof. Kate Fox, Dr. Hamid Khayyam, Dr. Ehsan Asadi, "All system analysis - analytics and intelligent automation", Next Generation Artificial Intelligence Program, 2022 - 2025 ($1073K).
9. Prof. Mahdi Jalili, Prof. Xiaodong Li, Dr Ali Moradiamani, Jason Bank, "Explainable machine learning for electrification of everything", ARC Linkage Grant (LP230100439), 2024 - 2026, ($512K).
10. Prof. Tianyi Ma, ..., Prof. Xiaodong Li, et al, ARC Industrial Transformation Research Hubs (IH240100009), "ARC Research Hub for Intelligent Energy Efficiency in Future Protected Cropping", $5 millions, 2024 - 2029.
11. Prof. Andreas Ernst, Prof. Xiaodong Li, Dr Yuan Sun, "Learning to Value Constraints", ARC Discovery Grant (DP250103251), $563K, 2025 - 2027.

Other Research Grants

1. Dr Xiaodong Li, Charles Sturt University Small Seed Grant, 1999 ($4000).
2. A/Prof. Vic Ciesielski, Dr Xiaodong Li and Dr Faye Liu, VPAC Expertise Program Grants, Genetic Programming with Expensive Fitness Evaluation, 2002 ($24000).
3. Dr Xiaodong Li and Dr Andy Song, School of Computer Science and IT Research Grant, Multiobjective Optimization in Genetic Programming, 2004 ($5000).

4. Dr Xiaodong Li, A/Prof. Vic Ciesielski, and Dr. Andy Song, VPAC Expertise Program Grant, Improving Genetic Programming for Classification Based on a Multiobjective Approach, 2004 ($17500).
5. Dr Xiaodong Li, 2010 RMIT Foundation Visiting Fellowship ($3350).
6. Dr Xiaodong Li, "Human like synthetic force development", DSTO Grant, 2013 - 2016 ($133K).
7. Dr Xiaodong Li, 2013 RMIT Foundation International Research Exchange Fellowship ($9210).
8. Dr Xiaodong Li, 2015 Scheme for Teaching and Learning Research (STeLR) Grant ($10.9K).
9. Dr Xiaodong Li, 2015 Xidian University Foreign Expert Teaching Grant ($6K).
10. Dr Xiaodong Li, 2016 RMIT Foundation International Visiting Fellowship ($7350).
11. Prof. Andrew Eberhard, Prof. John Hearne, Dr Vera Roshchina, Dr Fabricio Oliverira, Prof. Xiaodong Li, RMIT ECP Capability Development Fund, "Expanding the Collaborative Networks of the RMITOpt and ECML groups to embrace Aged Care", 2017 ($2.05K).
12. Prof. Xiaodong Li and Dr Jeffrey Chan, "Optimisation and machine learning for wetstock management", Commonwealth of Australia Innovation Connections Grant Scheme, 2018 - 2019 ($20K).

Research Grant Assessment

1. ARC Discovery Grants, 2012 - 2025
2. ARC Future/DECRA Fellowships, 2012 - 2023;
3. General Research Fund (GRF), Research Grants Council (RGC) of Hong Kong, 2012 - 2014.
4. EPSRC Grants, 2013.

Conference Chairs

General Chair, The Genetic and Evolutionary Computation Conference (GECCO 2024), 14 - 18 July 2024, Melbourne, Australia.

Special Sessions Co-Chair, 2020 IEEE Symposium Series on Computational Intelligence, 1-4 December, 2020, Canberra, Australia.

Tutorial Co-Chair, 2020 IEEE World Congress on Computational Intelligence (WCCI'2022), 18-23 July, 2022, Padua, Italy.

Technical Chair, The IEEE Congress on Evolutionary Computation (CEC'2018), part of WCCI'2018, Rio de janeiro, Brazil, July 8 - 13, 2018.

Technical Committee Co-Chair, The Eighth International Conference on Swarm Intelligence (ICSI 2017), Fukuoka, Japan, July 27 - August 1, 2017.

Technical Committee Co-Chair, The International Conference on Simulated Evolution And Learning (SEAL'2017), Shenzhen, China, 2017.

Co-chair of the track on Ant Colony Optimization and Swarm Intelligence, The Genetic and Evolutionary Computation Conference (GECCO 2017), July 15-19, 2017, Berlin, Germany.

General Chair, The Australasian Joint Conference on Artificial Intelligence(AI'17), Melbourne, Australia.

General Chair, The Australasian Conference on Artificial Life and Computational Intelligence (ACALCI'2017), Melbourne, Australia.

Co-chair of the track on Ant Colony Optimization and Swarm Intelligence, The Genetic and Evolutionary Computation Conference (GECCO'2016), July 20-24, 2016, Denver, Colorado, USA.

Technical Program Chair, The Tenth International Conference on Swarm Intelligence (ANTS 2016), September 7-9, 2016, Brussels, Belgium.

Program Co-chair, The Australasian Conference on Artificial Life and Computational Intelligence (ACALCI'2016), February 2-5, 2016, Canberra, Australia.

Publicity Co-Chair, IEEE Symposium Series on Computational Intelligence (IEEE SSCI'2015), South Africa.

Program Co-Chair, IEEE Congress on Evolutionary Computation 2012 (CEC'2012), Brisbane, Australia, 10 - 15 June 2012.

Publicity chair, Second International Conference on Swarm Intelligence (ICSI'2011), Chongqing, China, 12 - 15 June 2011.

Technical Committee Chair, International Conference on Swarm Intelligence (ICSI'2010), 6 - 9 June 2010.

Publicity Co-Chair, Seventh International Conference on Swarm Intelligence (ANTS'2010), 8 - 10 September 2010.

Organizing chair, 2010 IEEE CEC Special Session on Niching Methods for Multimodal Optimization, 18 - 23 July 2010, Barcelona, Spain.

Program Co-chair, 22nd Australasian Joint Conference on Artificial Intelligence (AI'09), 1 - 4 December, 2009.

Organizing chair, First Australasian Computational Intelligence Summer School (ACISS'09), 30 November - 1 December, 2009.

General Chair, Seventh International Conference on Simulated Evolution And Learning (SEAL'08), 7 - 10 December, 2008.

Publicity chair and steering committee member, IEEE Swarm Intelligence Symposium 2007 (SIS2007), Honolulu, Hawaii, USA, 1 - 5 April, 2007.

Organizing chair, special session on Swarm Intelligence, CEC'06.

Tutorial and special sessions chair, Sixth International Conference on Evolution And Learning (SEAL'06), Hefei, China, 15 - 18 October, 2006.

Organizing chair, special session on Swarm Intelligence, CEC'04.

Organizing chair, special session on Swarm Intelligence and Its Applications, CEC'03.

External PhD Examinations

PhD thesis, Department of Information Science, University of Otago, New Zealand, 2004.

PhD thesis, Department of Computer Science, University of Pretoria, South Africa, 2005.

PhD thesis, Department of Information Science, University of Otago, New Zealand, 2007.

PhD thesis, Department of Mechanical Engineering, The University of Melbourne, Australia, 2009.

PhD thesis, School of Aerospace, Civil and Mechanical Engineering, The University of New South Wales, Australia, 2009.

PhD thesis, School of Engineering and Information Technology, University College, University of New South Wales, Australian Defence Force Academy, Australia, 2009.

PhD thesis, Department of Computer Science, University of Pretoria, South Africa, 2009.

PhD thesis, School of Information Technology and Electrical Engineering, University of Queensland, Australia, 2011.

PhD thesis, Department of Statistics, Macquarie University, Australia, 2012.

PhD thesis, School of Computer Engineering, Nanyang Technological University, 2013.

PhD thesis, School of Computer Science, University of Adelaide, 2013.

PhD thesis, Faculty of ICT, Swinburne University of Technology, 2013.

PhD thesis, School of Science, Information Technology and Engineering, Faculty of Science, Federation University Australia, 2014.

PhD thesis, School of Computer Science, The University of Adelaide, 2018.

PhD Thesis, School of Engineering and Computer Science, Victoria University of Wellington, 2018

PhD thesis, Faculty of Engineering and Information Technology, University of Technology Sydney, 2019.

Co-ordination for nominating IEEE CIS awards

Invited (one of five) to write a reference letter to nominate Kenneth Price and Rainer Storn (the inventer of Differential Evolution) for the *IEEE CIS Evolutionary Computation Pioneer Award*.

Invited (one of five) to write a reference letter to successfully nominate Prof. Russell C. Eberhart and Prof. James Kennedy for the *IEEE CIS Evolutionary Computation Pioneer Award* on their 1995 work on PSO.

Co-ordinator for the successful nomination of 2009 IEEE CIS Outstanding Ph.D. Dissertation award - "Generalization and Diversity in Co-evolutionary Learning" by Siang Yew Chong.

Co-ordinator for the successful nomination of 2011 IEEE Computational Intelligence Society, *IEEE Transactions on Evolutionary Computation* Outstanding paper award - "Measuring Generalization Performance in Coevolutionary Learning," published in IEEE TEVC, vol. 12, no. 4, pp. 479-505, August 2008.

Talks and Tutorials

IEEE CIS Distinguished Lecture, "From Nature-inspired Computation to Machine Learning", Hyderabad IEEE CIS Chapter, Hyderabad, India, 20 November 2024.

Invited talk, "Adaptive Solution Prediction via Machine Learning for Large-Scale Combinatorial Optimization", OPTIMA ARC Training Centre in Optimisation Technologies, University of Melbourne, 13 November 2024; Ningbo Nottingham University, Ningbo, China, 3 December 2024.

Invited talk, "Adaptive Solution Prediction via Machine Learning for Large-Scale Combinatorial Optimization", Tsinghua University, 3 September 2024, Beijing, China.

Invited talk, "Large-Scale Optimization and Learning", Nanjing University, 14 March 2024, Nanjing, China; Northeastern University, Shenyang, 30 November 2024.

Invited talk, "Decision Making in Evolutionary Optimization and Beyond", AJCAI 2023 Workshop: Machine Learning for Data-driven Optimization", 28 November 2023, Brisbane, Australia.

Invited talk, "Adaptive Solution Prediction via Machine Learning for Large-Scale Combinatorial Optimization", 2023 Workshop on Futures of Computational Intelligence, 18 - 19 November 2023, Shenzhen, China.

Invited talk, "What Can Machine Learning Do to Facilitate Decision Making in Optimization?", 2023 IEEE Computational Intelligence Society Summer School and Summit Forum, 24 - 27 August 2023, Shenzhen, China.

Invited talk, "Decision Making in Evolutionary Optimization and Beyond", Workshop on Evolutionary Computation and Decision Making, GECCO2023, 15 July 2023, Lisbon, Portugal.

Tutorial, "Large-Scale Optimization and Learning", GECCO2023, 16 July 2023, Lisbon, Portugal.

Invited talk, “Solution Prediction via Machine Learning for Combinatorial Optimization”, IEEE CIS Taskforce on Evolutionary Scheduling and Combinatorial Optimization, 26 October 2022.

Tutorial, “Niching Methods for Multimodal Optimization”, IEEE WCCI 2020, 19 July 2020, Glasgow, UK.

Tutorial on “Evolutionary Large-Scale Global Optimization - Parts I and II”, IEEE CEC 2019 (10 June 2019).

Invited talk “Challenges in applying Evolutionary Algorithms to real-world problems”, SUSTech (22 April 2019).

Keynote talk “Seeking multiple solutions: multi-modal optimisation using niching methods”, SEAL’2017, 11 November 2017; also invited talk at AMSIOptimise’17 (27 June 2017).

Tutorial on “Evolutionary Large-Scale Global Optimization: An Introduction”, IEEE CEC 2017, GECCO 2017, SEAL’2017.

Invited talk on “Recent Advances on Niching Methods for Multimodal Optimization”, Guangdong University of Technology (24 March 2016); Xidian University (18 April 2016), Victoria University of Wellington (5 May 2016), Southern University of Science and Technology of China (31 May 2017);

Invited talk on “Decomposition and Cooperative Coevolution Techniques for Large Scale Global Optimization”, Sun Yat-sen University, Xidian University, Xi’an Jiaotong University, Guangdong University of Technology, China, April 2015; Dalian University of Technology, May 2015; Xiangtan University, April 2016; Jiangnan University, April 2016; Victoria University of Wellington, May 2016; South China University of Technology, April 2016.

Invited talk on “Swarm Intelligence”, Xidian University, South China University of Technology, China, April 2015; Dalian University of Technology, May 2015; Xi’an University of Technology, June 2015; China University of Petroleum (East China), March 2016.

A Panellist on the “Big Data and Computational Intelligence Panel” at WCCI’2014.

Tutorial on “Decomposition and Cooperative Coevolution Techniques for Large Scale Global Optimization” at WCCI’2014 and GECCO’2014.

Tutorial on “Decomposition via Cooperative Coevolution for Large Scale Global Optimization”, 2013 IEEE Congress on Evolutionary Computation (CEC’2013), 19 June 2013, Cancun, Mexico.

Invited lectures, “Decomposition via Cooperative Coevolution for Large Scale Global Optimization” and “Swarm Intelligence”, 2012 International Workshop on Nature Inspired Computation and Applications (IWNICA’12), Hefei, China, 22 - 25 October 2012.

Invited lectures, “Decomposition via Cooperative Coevolution for Large Scale Global Optimization”, Xidian University, Xi’an, China, 28 and 30 October 2012.

Invited talk on “Introduction to Particle Swarm Optimization”, Victorian University of Wellington, New Zealand, 4 May 2012.

Invited lecture on “Advances on Particle Swarm Optimization”, Sun Yat-sen University Computational Intelligence Winter School 2011, Guangzhou, China, 24 - 28 January 2011.

Seminar talk on “Particle Swarm Optimization”, School of Mathematical and Geospatial Sciences, RMIT University, 28 May 2010.

Seminar talk on “Recent developments on Particle Swarm Optimization”, University of Science and Technology of China (USTC), China, 24 September 2008.

Tutorial on “Particle Swarm Optimization”, with Prof. Andries P. Engelbrecht, GECCO’07, London, UK, 7 - 11 July 2007.

Invited tutorial on “Particle Swarm Optimization” SEAL’06, Hefei, China, 15 - 18 October 2006.

Seminar talk on "Multiobjective Optimization using Particle Swarms", Monash University, Melbourne, 2005.

Media Interviews

A short media interview by "theAge" Fairfax Science Columnist Peter Spink on "Has the Turing Test really been passed?", on 10 July 2014.

Publications

Edited Books and Special Issues

1. Singh, H., Ray, T., Knowles, J., **Li, X.**, Branke, J., Wang, B., Oyama, A. (eds.), *The Proceedings of 13th International Conference on Evolutionary Mutli-Criterion Optimization (EMO 2025)*, Lecture Notes in Computer Science (LNCS 15512), Canberra, Australia, March 4 - 7, 2025.
2. Preuss, M., Epitropakis, M., **Li, X.**, Fieldsend, J. (eds.) *Metaheuristics for Finding Multiple Solutions* Naural Computing Series, Springer, Ocotber 2021.
3. Mitrovic, T., Xue, B., **Li, X.** (Eds.), *The Proceedings of 31st Australasian Joint Conference on Artificial Intelligence (AI'18)*, Lecture Notes in Artificial Intelligence (LNAI 11320), Wellington, New Zealand, December 11 - 14, 2018.
4. Shi, Y., Tan, K.C., Zhang, M., Tang, K., **Li, X.**, Zhang, Q., Tan, Y., Middendorf, M., Jin, Y. (Eds.), *The Proceedings of the 11th International Conference on Simulated Evolution And Learning (SEAL 2017)*, Lecture Notes in Computer Science (LNCS 10593), Shenzhen, China, November 10 - 13, 2017, 1041 pages.
5. Dorigo, M., Birattari, M., **Li, X.**, Lopez-lbanez, M., Ohkura, K., Pinciroli, C., Stutzle, T. (Eds.), "ANTS 2016 special issue: Editorial", *Swarm Intelligence*, 11:181-183, 2017.
6. Peng, W., Alahakoon, D., **Li, X.** (Eds.), *The Proceedings of 30th Australasian Joint Conference on Artificial Intelligence (AI'17)*, Lecture Notes in Artificial Intelligence (LNAI 10400), Melbourne, Australia, August 19 - 20, 2017.
7. Wagner, M., **Li, X.** and Hendtlass, T. (Eds.), *The Proceedings of Third Australasian Conference on Artificial Life and Computational Intelligence (ACALCI 2017)*, Lecture Notes in Artificial Intelligence (LNAI 10142), Geelong, Australia, January 31 - February 2, 2017.
8. Ray, T., Ruhul, S. and **Li, X.** (Eds.), *The Proceedings of Second Australasian Conference on Artificial Life and Computational Intelligence (ACALCI 2016)*, Lecture Notes in Artificial Intelligence (LNAI 9592), Canberra, Australia, February 2 - 5, 2016.
9. Fang, W., **Li, X.**, Hu, M. and Zhang, M. (Eds.), *Special Issue of Journal of Applied Mathematics on "Nature-Inspired Algorithms for Real-world Optimization Problems"*, August 2015.
10. **Li, X.**, Tang, K., Suganthan, P.N. and Yang, Z. (Eds.), *Special Issue on "Nature-Inspired Algorithms for Large Scale Global Optimization", Information Sciences Journal (ISJ)*, Volume 316, pp. 437-615, September 2015.
11. Dick, G., Browne, WN., Whigham, P., Zhang, M., Bui, L.T., Ishibuchi, H., Jin, Y., **Li, X.**, Shi, Y., Singh, P., Tan, KC., Tang, K. (Eds.), *The Proceedings of the 10th International Conference on Simulated Evolution And Learning (SEAL 2014)*, Lecture Notes in Computer Science (LNCS 8886), Dunedin, New Zealand, December 15 - 18, 2014. 862 pages. ISBN 978-3-319-13562-5.
12. Cheung, Y.M., Wang, Y., Liu, H. and **Li, X.**, *Special Issue on "Selected Papers from the Ninth International Conference on Computational Intelligence and Security", The Scientific World Journal*, 2014.
13. Zhang, M., Kirley, M., **Li, X.**, *Special Issue on "Evolutionary Optimization and Learning", Journal of Soft Computing*, Vol.15, No.9, 2011.
14. Kirley, M., Zhang, M. and **Li, X.**, *Special Issue on "Simulated Evolution and Learning", Journal of Evolutionary Intelligence*, Vol.2, 2009.

15. Nicholson, A. and **Li, X.**, *The Proceedings of the 22nd Australasian Joint Conference on Artificial Intelligence (AI 2009)*, Lecture Notes in Computer Science (LNCS 5866), Melbourne, Australia, December 1 - 4, 2009.
16. Engelbrecht, A., **Li, X.**, Gambardella, L. and Middendorf, M., *Special Issue on "Swarm Intelligence", IEEE Transactions on Evolutionary Computation*, Vol. 13, No.4. August, 2009.
17. **Li, X.**, Kirley, M., Zhang, M., Green, D., Ciesielski, V., Abbass, H., Michalewicz, Z., Hendtlass, T., Deb, K., Tan, K.C., Branke, J., Shi, Y. (Eds.), *The Proceedings of the 7th International Conference on Simulated Evolution And Learning (SEAL 2008)*, Lecture Notes in Computer Science (LNCS 5361), Melbourne, Australia, December 7 - 10, 2008. 658 pages. ISBN: 978-3-540-89693-7.
18. **Li, X.**, Luo, W. and Yao, X. (eds.), *Special Issue on "Evolutionary Optimization", Journal of Computer Science Technology*, Vol.23, No.1, January 2008.
19. **Li, X.**, Luo, W. and Yao, X. (eds.), *Special Issue on "Simulated Evolution and Learning", International Journal of Computational Intelligence and Applications (IJCIA)*, World Scientific Press, Vol.7, No.2, June 2008.
20. **Li, X.**, Luo, W. and Yao, X. (eds.), *Special Issue on "Theoretical Foundations of Evolutionary Computation", Journal of Genetic Programming and Evolvable Machines*, Springer, Vol.9, No.2, June 2008.
21. **Li, X.**, Luo, W. and Yao, X. (eds.) (2007). *Special Issue on "Evolutionary Learning and Optimization", Connection Science*, Volume 19, Issue 4, December 2007, Taylor & Francis, London, UK.
22. Wang, T.-D., **Li, X.**, Chen, S.-H., Wang, X., Abbass, H., Iba, H, Chen, G. and Yao, X. (eds.), *The Proceedings of the 6th International Conference on Simulated Evolution And Learning (SEAL 2006)*, Lecture Notes in Computer Science (LNCS 4247), Hefei, China, October 15-18, 2006. 940 pages. ISBN: 3-540-47331-9.

Book Chapters

23. Preuss, M., Epitropakis, M., **Li, X.**, Fieldsend, J. " Multimodal Optimization: Formulation, Heuristics, and a Decade of Advances", in *Metaheuristics for Finding Multiple Solutions*, pp.1 - 26, Springer, October 2021.
24. Miessen, A., Najman, J. and **Li, X.**, "Finding Representative Solutions in Multimodal Optimization for Enhanced Decision-Making", in *Metaheuristics for Finding Multiple Solutions*, pp.57 - 88, Springer, October 2021.
25. **Li, X.** and Clerc, M., "Swarm Intelligence", in *Handbook of Metaheuristics* (3rd edition), Gendreau, Michel, Potvin, Jean-Yves (Eds.), Springer, pp.353 - 384, September 2018.
26. **Li, X.**, "Multimodal Optimization using Niching Methods," in *Wiley Encyclopedia of Electrical and Electronics Engineering*, Wiley, pp.1 - 8 (Published online: 16/11/2016).
27. Carrese, R., and **Li, X.**, "Preference-based multiobjective PSO for airfoil design," in *Springer Handbook of Computational Intelligence*, (Kacprzyk and Pedrycz, eds.), pp. 1311–1331, Springer, 2015.
28. **Li, X.**, "Developing niching algorithms in particle swarm optimization," in *Handbook of Swarm Intelligence Concepts, Principles and Applications, Series on Adaptation, Learning, and Optimization*, (B. K. Panigrahi, Y. Shi, and M. H. Lim, eds.), vol. 8, pp. 67–88, Springer, 2011.
29. Bird, S., and **Li, X.**, "Improving local convergence in particle swarms by fitness approximation using regression," in *Computational Intelligence in Expensive Optimization Problems*, (Y. Tenne, and C. K. Goh, eds.), vol. 2, pp. 265–293, Springer, 2010.
30. Blum, C., and **Li, X.**, "Swarm intelligence in optimization," in *Swarm Intelligence - Introduction and Applications*, (C. Blum, and D. Merkle, eds.), pp. 43–85, Springer, 2008.
31. Blackwell, T., Branke, J., and **Li, X.**, "Particle swarms for dynamic optimization problems," in *Swarm Intelligence - Introduction and Applications*, (C. Blum, and D. Merkle, eds.), pp. 193–217, Springer, 2008.

32. **Li, X.**, and Sutherland, S., "A Real-Coded Cellular Genetic Algorithm Inspired by Predator-Prey Interactions", in K.C. Tan, M.H. Lim, X. Yao, and L. Wang (eds.) *Recent Advances in Simulated Evolution and Learning, Advances in Natural Computation*. World Scientific, 2004.
33. **Li, X.**, and Magill, W., "Modelling Fire Behaviours under Environmental Influences Using a Cellular Automaton Approach", *Applied Complexity - from Neural Nets to Managed Landscape*, S. Halloy and T. Williams (eds.), pp. 164–178, 2000.

Refereed Journal Papers

34. Naeem, U., Chadda, K., Vahaji, S., Ahmad, J., **Li, X.**, Asadi, E. (2025), "Aerial Imaging-Based Soiling Detection System for Solar Photovoltaic Panel Cleanliness Inspection", *Sensors*, 25(3), 738.
35. Thiruvady, D., Nguyen, S., Sun, Y., Shiri, F., Zaidi, N, **Li, X.** (2024), "Adaptive Population-based Simulated Annealing for Resource Constrained Job Scheduling with Uncertainty", *International Journal of Production Research*, 62(17), 6227-6250.
36. Sun, Y., Esler, S., Thiruvady, D., Ernst, A.T., **Li, X.**, and Morgan, K. (2024), "Instance Space Analysis for the Car Sequencing Problem", *Annals of Operations Research*, 341(1), 41-69.
37. Liu, Y., Zuo, X., **Li, X.**, and Nie, S. (2024), "A Genetic Algorithm with Trip-adjustment Strategy for Multi-depot Electric Bus Scheduling Problems", *Engineering Optimization*, 56 (8), 1200-1219.
38. Chu, R., Chik, L., Chan, J., Gutzman, K., **Li, X.** (2023), "Automatic Meter Error Detection with a Data-Driven Approach", *Engineering Applications of Artificial Intelligence*, Vol.123, Part C, 2023, 106466.
39. Weiner, J., Ernst, A.E., **Li, X.**, and Sun, Y. (2023), "Ranking Constraint Relaxations for Mixed Integer Programs using a Machine Learning Approach", *EURO Journal on Computational Optimization*, Vol.11, 2023, 100061.
40. Shen, Y., Eberhard, A., Sun, Y., **Li, X.**, and Ernst A.T. (2023), "Adaptive Solution Prediction for Combinatorial Optimization", *European Journal of Operational Research*, 309(3): 1392-1408, September 2023.
41. Ma, X., Tao, H., **Li, X.**, Qi, Y., Wang, L., and Zhu, Z. (2023), "Multi-objectivization of Single-objective Optimization in Evolutionary Computation: a Survey", *IEEE Transactions on Cybernetics*, 53(6): 3702-3715, June 2023.
42. Sun, Y., Wang, S., **Li, X.**, Ernst, A.T., and Kirley, M. (2022), "Boosting Ant Colony Optimization via Solution Prediction and Machine Learning", *Computers and Operations Research*, Vol.143, July 2022, 105769.
43. Ma, X., Huang, Z., **Li, X.**, Wang, L., Qi, Y. and Zhu, Z. (2022), "Merged Differential Grouping for Large-scale Global Optimization", *IEEE Transactions on Evolutionary Computation*, 26(6):1439 - 1451, December 2022.
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March 18, 2025