

Curriculum Vitae

Name Xiaodong Li

Contact School of Science (Computer Science and Software Engineering)
414 - 418 Swanston Street
Melbourne, Victoria, Australia
Phone: +61 3 99259585; Fax: +61 3 96621617
Email: xiaodong.li@rmit.edu.au
<http://titan.csit.rmit.edu.au/e46507/>

Education *Ph.D., Artificial Intelligence*, June 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 Science (CSSE), 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 Senior Member; Member of IEEE Computational Intelligence Society.

Member, Task Force on Swarm Intelligence, IEEE Computational Intelligence Society (Vice Chair from 2012 - 2016).

Vice Chair, Task Force on Multi-modal Optimization, IEEE CI Society (from 2015).

Vice Chair, Computational Intelligence Chapter, IEEE Victorian Section, Melbourne, Australia.

Member, Task Force on Evolutionary Computation in Dynamic and Uncertain Environments (ECiDUE), IEEE Computational Intelligence Society.

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

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

Member, Advisory Board of the Center of Computational Science.

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* (since 2008).

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: 38; total citations: 6940 (according to Google Scholar, 20/12/2017).

Research Awards

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

2017 IEEE Transactions on Evolutionary Computation Outstanding Paper Award.

“**Pengcheng Scholar**” (Adjunct Professor), Southern University of Science and Technology of China (SUSTC), 2017 - 2018.

Research Supervision

I have successfully supervised to completion 6 PhD students (as the first supervisor) and 6 PhD students (as the 2nd supervisor). Currently I am supervising 7 PhD students as the first supervisor, and co-supervising 4 other PhD students. I have also supervised several master and honours students.

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 (RMIT), Prof. Xin Yao (University of Birmingham), “Novel Decomposition Methods for Large Scale Optimization”, ARC Discovery Grant (DP120102205), 2012 - 2014 (\$317K).
7. 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).
8. 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).
9. 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).
10. Dr Xiaodong Li, “Human like synthetic force development”, DSTO Grant, 2013 - 2016 (\$133K).
11. Dr Xiaodong Li, 2013 RMIT Foundation International Research Exchange Fellowship (\$9210).
12. Dr Xiaodong Li, 2015 Scheme for Teaching and Learning Research (STeLR) Grant (\$10.9K).
13. Dr Xiaodong Li, 2015 Xidian University Foreign Expert Teaching Grant (\$6K).
14. Dr Xiaodong Li, 2016 RMIT Foundation International Visiting Fellowship (\$7350).
15. 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).
16. Prof. Xiaodong Li, Prof. Andreas Ernest, Prof. Kalyanmoy Deb, “Hybrid methods with decomposition for large scale optimization”, ARC Discovery Grant (DP180101170), 2018 - 2020 (\$352K).

Research Grant Assessment

1. Assessor for ARC Discovery Grants, 2012 - 2018;
2. Assessor for ARC Future Fellowships, 2012 - 2016;
3. Assessor for ARC DECRA Fellowships, 2013, 2016, 2017;
4. Assessor for General Research Fund (GRF), Research Grants Council (RGC) of Hong Kong, 2012, 2013, 2014.
5. Assessor for EPSRC Grants, 2013.

Conference Chairs

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 (ACISS09), 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.

Co-ordination for nominating IEEE CIS awards

Invited (one of five) to write a reference letter to nominate Kenneth Price and Rainer Storn (the inventor 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

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. 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.
2. 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.
3. 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.

9. 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.
10. Zhang, M., Kirley, M., **Li, X.**, *Special Issue on “Evolutionary Optimization and Learning”*, *Journal of Soft Computing*, Vol.15, No.9, 2011.
11. Kirley, M., Zhang, M. and **Li, X.**, *Special Issue on “Simulated Evolution and Learning”*, *Journal of Evolutionary Intelligence*, Vol.2, 2009.
12. 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.
13. 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.
14. **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.
15. **Li, X.**, Luo, W. and Yao, X. (eds.), *Special Issue on “Evolutionary Optimization”*, *Journal of Computer Science Technology*, Vol.23, No.1, January 2008.
16. **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.
17. **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.
18. **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.
19. 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

20. **Li, X.**, “Multimodal Optimization using Niching Methods,” in *Wiley Encyclopedia of Electrical and Electronics Engineering*, Wiley (accepted on 01/09/2016).
21. 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.
22. **Li, X.**, “Swarm Intelligence,” in *Computational Intelligence* (6.44.40-55 UNESCO Encyclopedia of Life Support Systems (EOLSS)), EOLSS Publishers, Oxford, UK, Vol.II, pp. 87-112, 2015.
23. **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.
24. 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.
25. 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.
26. 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.

27. **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.
28. **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

29. Xie, J., Mei, Y., Ernst, A.T., **Li, X.**, and Song, A., “A Bi-level Optimization Model for Grouping Constrained Storage Location Assignment Problems”, *IEEE Transactions on Cybernetics*, 48(1): 385 - 398, January 2018.
30. Zhang, A., Sun, G., Ren, J., **Li, X.**, Wang, Z., and Jia, X., “A Dynamic Neighborhood Learning-Based Gravitational Search Algorithm”, *IEEE Transactions on Cybernetics*, 48(1): 385 - 398, January 2018.
31. Qi, Y., Yu, J., **Li, X.**, Quan, Y., Miao, Q., “Enhancing Robustness of the Inverted PBI Scalarizing Method in MOEA/D”, *Applied Soft Computing* (accepted on 10/11/2017).
32. Wang, Y., Liu, H., Wei, F., Zong, T., and **Li, X.**, “Cooperative Co-evolution with Formula-based Variable Grouping for Large-Scale Global Optimization”, *Evolutionary Computation Journal*, MIT Press, 2017 (published online).
33. Lin, J. Wang, Z.J., and **Li, X.**, “A backtracking search hyper-heuristic for the distributed assembly flow-shop scheduling problem”, *Swarm and Evolutionary Computation* (accepted on 29/04/2017).
34. Islam, M.J., **Li, X.**, and Mei, Y., “A Time-Varying Transfer Function for Balancing Exploration and Exploitation ability of a Binary PSO”, *Applied Softcomputing* (accepted on 24/04/2017).
35. Omidvar, M., Yang, M., Mei, Y., **Li, X.**, and Yao, X., “DG2: A Faster and More Accurate Differential Grouping for Large-Scale Black-Box Optimization,” in *IEEE Transactions on Evolutionary Computation*, 21(6): 929 - 942, December 2017.
36. Li, N., Cheung, S., **Li, X.** and Tu, J., “Multi-objective optimization of HVAC system using NSPSO and Kriging algorithms - A case study”, *Building Simulation*, 10(5): 769 - 781, October 2017.
37. Tamassia, M., Zambetta, F., Raffe, W.L., Mueller, F.F., and **Li, X.**, “Learning Options from Demonstrations: A Pac-Man Case Study”, *IEEE Transactions on Computational Intelligence and AI in Games* (accepted, 05/01/2017).
38. **Li, X.**, Epitropakis, M.G., Deb, K., and Engelbrecht, A., “Seeking Multiple Solutions: an Updated Survey on Niching Methods and Their Applications”, *IEEE Transactions on Evolutionary Computation*, 21(4):518 - 538, August 2017.
39. Qi, Y., Yu, J., **Li, X.**, Wei, Y., and Miao, Q., “Reservoir Flood Control Operation Using Multi-objective Evolutionary Algorithm with Decomposition and Preferences”, *Applied Soft Computing*, 50: 21 – 33, 2017.
40. Zheng, J., Yu, G., Zhu, Q., **Li, X.**, and Zou, J., “On decomposition methods in interactive user-preference based optimization”, *Applied Soft Computing*, 52: 952 – 973, 2017.
41. Yang, M., Omidvar, M., Li, C., **Li, X.**, Cai, Z., Kazimipour, B. and Yao, X., “Efficient Resource Allocation in Cooperative Co-evolution for Large-Scale Global Optimization”, *IEEE Transactions on Evolutionary Computation*, 21(4):493 - 505, August 2017.
42. Tang, K., Wang, J., **Li, X.**, Yao, X., “A Scalable Approach to Capacitated Arc Routing Problems based on Hierarchical Decomposition”, *IEEE Transactions on Cybernetics*, 47(11): 3928 - 3940, November 2017.
43. Sun, G., Zhang, A., Jia, X., **Li, X.**, Ji, S., and Wang, Z., “DMMOGSA: Diversity-enhanced and memory-based multi-objective gravitational search algorithm”, *Information Sciences*, 363: 52–71, 2016.

44. Lee, G., Zambetta, F., Li, X., Paolini, A., “Utilising Reinforcement Learning to Develop Strategies for Driving Auditory Neural Implants,” *Journal of Neural Engineering*, 13(4):046027, 2016.
45. Ghasemishabankareh, B., Li, X., Ozlen, M., “Cooperative coevolutionary differential evolution with improved augmented Lagrangian to solve constrained optimisation problems,” *Information Sciences*, Volume 369, pp. 441–456, 2016.
46. Qi, Y., Bao, L., Ma, X., Miao, Q., Li, X., “Self-adaptive Multi-objective Evolutionary Algorithm based on Decomposition for Large-scale problems: A Case Study on Reservoir Flood Control Operation,” *Information Sciences*, Volume 367–368, pp. 529–549, 2016.
47. Mei, Y., Salim, F., Li, X., “Efficient Meta-heuristics for the Multi-Objective Time-Dependent Orienting Problem,” *European Journal of Operational Research*, Volume 254, pp. 443–457, 2016.
48. Mei, Y., Li, X. and Yao, X., “On investigation of interdependence between sub-problems of the travelling thief problem,” *Soft Computing: A Fusion of Foundations, Methodologies and Applications*, 20(1): pp. 157–172, 2016.
49. Liu, J., Mei, Y., and Li, X., “An Analysis of the Inertia Weight Parameter for Binary Particle Swarm Optimization,” in *IEEE Transactions on Evolutionary Computation*, 20(5): 666–681, October 2016.
50. Mei, Y., Omidvar, M., Li, X. and Yao, X. “A Competitive Divide-and-Conquer Algorithm for Unconstrained Large Scale Black-Box Optimization,” in *ACM Transactions on Mathematical Software (TOMS)*, 42(2):13:2–13:24, June 2016.
51. Amini, I., Sanderson, M., Martinez, D., and Li, X., “Improving Patient Record Search: A Meta-data based Approach”, in *Information Processing & Management*, vol. 52, no. 2, pp. 258–272, 2016.
52. Qi, Y., Hou, Z., Li, H., Huang, J., and Li, X., “A Decomposition Based Memetic Algorithm for Multi-objective Vehicle Routing Problem with Time Windows”, in *Computers & Operations Research*, vol.62, pp. 61–67, 2015.
53. Omidvar, M., Li, X., and Tang, K., “Designing benchmark problems for large scale continuous optimization,” in *Information Sciences*, 316: 419–436, 2015.
54. Raffe, W., Zambetta, F., Li, X., and Stanley, K., “An Integrated Approach to Personalized Procedural Map Generation using Evolutionary Algorithms,” in *IEEE Transactions on Computational Intelligence and AI in Games*, vol. 7, issue. 2, pp. 139–155, June 2015.
55. Bonyadi, M.R., Michalewicz, Z., and Li, X., “An analysis of the velocity updating rule of the particle swarm optimization algorithm,” in *Journal of Heuristics*, vol. 20, issue. 4, pp. 417–452, 2014.
56. Mei, Y., Li, X., and Yao, X., “Cooperative co-evolution with route distance grouping for large scale capacitated arc routing problems,” in *IEEE Transactions on Evolutionary Computation*, vol. 18, issue. 3, pp. 435–449, 2014.
57. Omidvar, M., Li, X., Mei, Y., and Yao, X., “Cooperative co-evolution with differential grouping for large scale optimization,” in *IEEE Transactions on Evolutionary Computation*, vol. 18, issue. 3, pp. 378–393, 2014 (**2017 IEEE Transactions on Evolutionary Computation Outstanding Paper Award**).
58. Jiang, B., Wang, N., and Li, X., “Particle swarm optimizer with ageing operator for multimodal function optimization,” in *International Journal of Computational Intelligence Systems*, vol. 6, issue. 5, pp. 826–880, 2013.
59. Carrese, R., Winarto, H., Li, X., Sobester, A., and Ebenezer, S., “A comprehensive preference-based optimization framework with application to high-lift aerodynamic design,” in *Engineering Optimization*, Taylor & Francis, vol. 44, issue. 10, pp. 1209–1227, 2012.
60. Bonyadi, M.R., and Li, X., “A new discrete electromagnetism-based meta-heuristic for solving the multidimensional knapsack problem using genetic operators,” in *Operational Research*, vol. 12, issue. 2, pp. 229–252, 2012.
61. Li, X., and Yao, X., “Cooperatively co-evolving particle swarms for large scale optimization,” *IEEE Transactions on Evolutionary Computation*, vol. 16, issue. 2, pp. 210–224, 2012.

62. Carrese, R., Sobester, A., Winarto, H., and Li, X., "Swarm heuristic for identifying preferred solutions in surrogate-based multiobjective engineering design," in *American Institute of Aeronautics and Astronautics (AIAA) Journal*, vol. 49, issue. 7, pp. 1437–1449, 2011.
63. Iorio, A., and Li, X., "Improving the performance and scalability of Differential Evolution on problems exhibiting parameter interactions," *Journal of Soft Computing*, Special issue on "Evolutionary Optimisation and Learning", Springer, 15(9): 1769–1792, 2011.
64. Rönkkönen, J., Li, X., Kyrki, V., and Lampinen, J., "Framework for generating tunable test functions for multimodal optimization," *Journal of Soft Computing*, Special issue on "Evolutionary Optimisation and Learning", Springer, 15(9): 1689-1706, 2011.
65. Li, X., "Niching without niching parameters: Particle swarm optimization using a ring topology," in *IEEE Transactions on Evolutionary Computation*, vol. 14, issue. 1, pp. 150–169, 2010.
66. Zhang, M., Kirley, M. and Li, X., Guest editorial: "Evolutionary Optimization and Learning", *Journal of Soft Computing*, 15(9): 1671 -1673, 2011.
67. Kirley, M., Zhang, M. and Li, X., Guest editorial: "Special Issue on Simulated Evolution and Learning", *Journal of Evolutionary Intelligence*, 2:149 - 150, 2009.
68. Engelbrecht, A., Li, X., Gambardella, L. and Middendorf, M., (eds.), Guest editorial: "Special Issue on Swarm Intelligence", *IEEE Transactions on Evolutionary Computation*, 13(13): 676-677, August 2009.
69. Khan, A.A., Bashir, S., Naeem, M., Shah, S.I., and Li, X., "Symbol detection in spatial multiplexing system using particle swarm optimization meta-heuristics," in *International Journal of Communication Systems*, Wiley, vol. 21, issue. 12, pp. 1239–1257, 2008.
70. Iorio, A., and Li, X., "Rotated problems and rotationally invariant crossover in evolutionary multi-objective optimization," in *International Journal of Computational Intelligence and Applications (IJCIA)*, Special issue on "Simulated Evolution and Learning", World Scientific Press, vol. 7, issue. 2, pp. 149–186, 2008.
71. Li, X., Luo, W. and Yao, X., (eds.), Guest editorial: "Special Issue on Evolutionary Optimization", *Journal of Computer Science Technology*, Springer, 23(1):1, January 2008.
72. Li, X., Luo, W. and Yao, X., (eds.), Guest editorial: "Special Issue on Simulated Evolution and Learning", *International Journal of Computational Intelligence and Applications (IJCIA)*, World Scientific Press, 7(2):1, June 2008.
73. Li, X., Luo, W. and Yao, X., (eds.), Guest editorial: "Special Issue on Theoretical Foundations of Evolutionary Computation", *Journal of Genetic Programming and Evolvable Machines*, Springer, 9(2):1, June 2008.
74. Li, X., Luo, W. and Yao, X., Guest editorial: "Special Issue on Evolutionary Learning and Optimization", *Connection Science*, Taylor & Francis, London, UK, 19(4): 279-280, December 2007.
75. Li, L., Zhou, J., Yu, X., and Li, X., "Constrained power plants unit loading optimization using particle swarm optimization algorithm," in *WSEAS Transactions on Information Science & Applications*, vol. 4, issue. 2, 2007.
76. Parrott, D., and Li, X., "Locating and tracking multiple dynamic optima by a particle swarm model using speciation," in *IEEE Transactions on Evolutionary Computation*, vol. 10, issue. 4, pp. 440–458, 2006.
77. Gamble, T. and Li, X., "Emergence of Cooperation in the IPD Game using Spatial Interactions," Special issue on Evolutionary Computing, *International Journal of Knowledge-Based Engineering*, vol. 7, no. 3, pp. 124–131, 2003.
78. Li, X. and Magill, W., "Critical Density in a Fire Spread Model under Environmental Influence," Special Issue on "Artificial Life", *International Journal of Computational Intelligence and Applications (IJCIA)*, vol. 3, no. 2, pp. 145–155, 2003, World Scientific Press.

79. Li, X., "Connectionist learning: A Comparison of Neural Networks and an Optical Thin-Film Multilayer Model," *Connection Science*, vol. 14, no. 1/March 01, 2002, pp. 49 –63. Taylor & Francis, London, UK.
80. Li, X. and Magill, W., "Modelling Fire Behaviours under Environmental Influences Using a Cellular Automaton Approach," *Complexity International*, vol. 8, 2000.
81. Li, X. and Purvis, M.K., "Pattern Recognition by an Optical Thin-Film Multilayer Learning Model," *Annals of Mathematics and Artificial Intelligence*, Baltzer Science Publishers, Netherlands, vol. 26:1-4, pp.193-213, 1999.

Refereed Conference Papers

82. Kenny, A., Li, X., (2017), "A Study on Pre-training Deep Neural Networks Using Particle Swarm Optimisation", in *Proceedings of the tenth International Conference on Simulated Evolution and Learning (SEAL'17)*, LNCS 10593, pp. 361 – 372, 2017.
83. Lin, J., Luo, D., Li, X., Gao, K., Liu, Y. (2017), "Differential Evolution Based Hyper-heuristic for the Flexible Job-Shop Scheduling Problem with Fuzzy Processing Time", in *Proceedings of the tenth International Conference on Simulated Evolution and Learning (SEAL'17)*, LNCS 10593, pp. 75 – 86, 2017.
84. Duan, Q., Shao, C., Li, X., Shi, Y. (2017), "Visualizing the Search Dynamics in a High-Dimensional Space for a Particle Swarm Optimizer", in *Proceedings of the tenth International Conference on Simulated Evolution and Learning (SEAL'17)*, LNCS 10593, pp. 994 – 1002, 2017.
85. Schellenberg, S., Li, X., and Michalewicz, Z., (2017), "Preliminary Study on Solving Coal Processing and Blending Problems Using Lexicographic Ordering," in *Proceedings of the 30th Australasian Conference on Artificial Intelligence (AI'17)*, LNCS 10400, pp. 221–233, 2017.
86. Demediuk, S., Tamassia, M., Raffaele, W., Zambetta, F., Li, X., Mueller, F. (2017), "Monte Carlo Tree Search Based Algorithms for Dynamic Difficulty Adjustment", in *Proceedings of the Conference on Computational Intelligence and Games (CIG 2017)*, IEEE, pp. 53–59, 2017.
87. Islam, M.J., Li, X. and Deb, K., "Multimodal Truss Structure Design Using Bilevel and Niching Based Evolutionary Algorithms," in *Proceedings of the 2017 Conference on Genetic and Evolutionary Computation Conference (GECCO)*, Berlin, Germany, ACM pp. 274–281, 2017.
88. Kenny, A., Li, X., Ernst, A.T. and Thiruvady, D., "Towards Solving Large-Scale Precedence Constrained Production Scheduling Problems in Mining," in *Proceedings of the 2017 Conference on Genetic and Evolutionary Computation Conference (GECCO)*, Berlin, Germany, ACM, pp. 1137–1141, 2017.
89. Haqqani, M., Li, X. and Yu, X., "An Evolutionary Multi-criteria Journey Planning Algorithm for Multimodal Transportation Networks", in *Proceedings of the Australasian Conference on Artificial Life and Computational Intelligence (ACALCI)*, LNCS 10142, pp. 144–156, 2017.
90. Haqqani, M., Li, X. and Yu, X., "Estimating Passenger Preferences Using Implicit Relevance Feedback for Personalized Journey Planning", in *Proceedings of the Australasian Conference on Artificial Life and Computational Intelligence (ACALCI)*, LNCS 10142, pp. 157–168, 2017.
91. Qi, Y., Guo, H. and Li, X., "Extending the Delaunay Triangulation Based Density Measurement to Many-Objective Optimization", in *Proceedings of the Australasian Conference on Artificial Life and Computational Intelligence (ACALCI)*, LNCS 10142, pp. 3–11, 2017.
92. Fico, F., Urbino, F., Carrese, R., Marzocca, P. and Li, X., "Surrogate-Assisted Multi-swarm Particle Swarm Optimization of Morphing Airfoils", in *Proceedings of the Australasian Conference on Artificial Life and Computational Intelligence (ACALCI)*, LNCS 10142, pp. 124–133, 2017.
93. Miller, P., Colasante, M. and Li, X., "Debugging performance: creative solutions to developing computer science students' problemsolving skills", in *Proceedings of the Annual Conference of the Higher Education Research and Development Society of Australasia (HERDSA 2016)*, New South Wales, Australia, 4-7 July 2016, pp. 1–11, 2016.

94. Tamassia, M., Zambetta, F., Raffe, W., Mueller, F., **Li, X.**, “Dynamic Choice of State Abstraction in Q-learning,” in *Proceedings of the 22nd European Conference on Artificial Intelligence (ECAI 2016)*, The Hague, Neitherland, pp. 46–54, 2016.
95. Schellenberg, S., **Li, X.**, and Michalewicz, Z., “Benchmarks for the coal processing and blending problem,” in *Proceedings of the 2016 Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (Denver, USA), ACM, pp. 1005–1012, 2016.
96. Kenny, A., **Li, X.**, Qin, K., and Ernst, A., “A Population-based Local Search Technique with Random Descent and Jump for the Steiner Tree Problem in Graphs,” in *Proceedings of the 2016 Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (Denver, USA), ACM, pp. 333-340, 2016.
97. Omidvar, M., Kazimipour, B., **Li, X.**, and Yao, X., “CBCG3 – A Contribution-Based Cooperative Co-evolutionary Algorithm with Better Exploration/Exploitation Balance”, in *Proceedings of Congress of Evolutionary Computation (CEC)*, IEEE, pp. 3541-3548, 2016.
98. Qi, Y., Yin, M., and **Li, X.**, “A Delaunay Triangulation Based Density Measurement for Evolutionary Multi-objective Optimization”, in *Proceedings of the Australasian Conference on Artificial Life and Computational Intelligence (ACALCI)*, LNCS 9592, pp. 183–192, 2016.
99. Ghasemishabankareh, B., Shahsavari-Pour, N., Basiri, M., and **Li, X.**, “A Hybrid Imperialist Competitive Algorithm for the Flexible Job Shop Problem”, in *Proceedings of the Australasian Conference on Artificial Life and Computational Intelligence (ACALCI)*, LNCS 9592, pp. 221–233, 2016.
100. Li, N. , Chueng, S., **Li, X.**, and Tu, J., “Development of a multi-objective design optimization platform using NSM-PSO and CFD for heating and ventilation applications”, in *Proceedings of the Eleventh International Conference on CFD in the Minerals and Process Industries*, pp. 1–6, 2015.
101. Li, N. , Chueng, S., **Li, X.**, and Tu, J., “Multi-objective optimization of thermal comfort and energy consumption in a typical office room using CFD and NSM-PSO,” in *Proceeding of the 21st International Congress on Modelling and Simulation (MODSIM2015)*, pp. 78–84, December 2015.
102. Raffe, W., Zambetta, F., Tamassia, M., Mueller, F., Pell, S., and **Li, X.**, “Player-Computer Interaction Features for Designing Digital Play Experiences across Six Degrees of Water Contact”, in *Proceedings of the 2015 Annual Symposium on Computer-Human Interaction in Play (CHI PLAY)*, ACM, pp. 295–305, 2015.
103. Ivanovic, J., Raffe, W., Zambetta, F., and **Li, X.**, “Combining Monte Carlo Tree Search and Apprenticeship Learning for Capture the Flag”, in *Proceedings of the Conference on Computational Intelligence and Games (CIG)*, IEEE, pp. 154–161, 2015.
104. Raffe, W., Zambetta, F., Tamassia, M., Mueller, F., and **Li, X.**, “Enhancing Theme Park Experiences through Adaptive Cyber-Physical Play”, in *Proceedings of the Conference on Computational Intelligence and Games (CIG)*, IEEE, pp. 503–510, 2015.
105. Kazimipour, B., Omidvar, M., **Li, X.**, and Qin, A.K., “A Sensitivity Study of Contribution-Based Cooperative Co-evolutionary Algorithms”, in *Proceedings of Congress of Evolutionary Computation (CEC)*, IEEE, pp. 417–422, 2015.
106. Xie, J., Mei, Y., Ernst, A., **Li, X.**, and Song, A., “A Restricted Neighbourhood Tabu Search for Storage Location Assignment Problem”, in *Proceedings of Congress of Evolutionary Computation (CEC)*, IEEE, pp. 2805–2812, 2015.
107. Mohammadi, A., Omidvar, M., **Li, X.**, and Deb, K., “Sensitivity Analysis of Penalty-based Boundary Intersection on Aggregation-based EMO Algorithms”, in *Proceedings of Congress of Evolutionary Computation (CEC)*, IEEE, pp. 2891–2898, 2015.
108. Yu, G., Jin, H., and **Li, X.**, ”An Improved Performance Metric for Multiobjective Evolutionary Algorithms with User Preferences”, in *Proceedings of Congress of Evolutionary Computation (CEC)*, IEEE, pp. 908–915, 2015.
109. Mei, Y., **Li, X.**, Salim, F., and Yao, X., “Heuristic Evolution with Genetic Programming for Traveling Thief Problem,” in *Proceedings of the 2015 IEEE Congress on Evolutionary Computation (CEC)*, IEEE, pp. 2753–2760, 2015.

110. Tamassia, M., Zambetta, F., Raffaele, W., and Li, X., "Learning options for an MDP from demonstrations," in *Proceedings of the Australasian Conference on Artificial Life and Computational Intelligence (ACALCI)*, LNCS 8955, pp. 226–242, 2015.
111. Ivanovic, J., Zambetta, F., Li, X., and Villicana, J.R., "Reinforcement learning to control a commander for capture the flag," in *Proceedings of the 2014 IEEE Conference on Computational Intelligence and Games (CIG)*, pp. 1–8, 2014.
112. Kazimipour, B., Li, X., and Qin, A.K., "Why advanced population initialization techniques perform poorly in high dimensions?," in *Proceedings of the 10th International Conference on Simulated Evolution and Learning (SEAL)*, pp. 479–490, 2014.
113. Mei, Y., Li, X., and Yao, X., "Improving Efficiency of Heuristics for the Large Scale Traveling Thief Problem," in *Proceedings of the 10th International Conference on Simulated Evolution and Learning (SEAL)*, pp. 631–643, 2014.
114. Xie, J., Mei, Y., Ernst, A., Li, X., and Song, A., "Scaling up solutions to storage location assignment problems by genetic programming," in *Proceedings of the 10th International Conference on Simulated Evolution and Learning (SEAL)*, pp. 691–702, 2014.
115. Haqqani, M., Li, X., and Yu, X., "A multiobjective A* search based on non-dominated sorting," in *Proceedings of the 10th International Conference on Simulated Evolution and Learning (SEAL)*, pp. 228–238, 2014.
116. Kazimipour, B., Omidvar, M., Li, X., and Qin, A.K., "A novel hybridization of opposition-based learning and cooperative co-evolutionary for large scale optimization," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Beijing, China), pp. 2833–2840, 2014.
117. Kazimipour, B., Li, X., and Qin, A.K., "Effects of population initialization on differential evolution for large scale optimization." in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Beijing, China), pp. 2404–2411, 2014.
118. Kazimipour, B., Li, X., and Qin, A.K., "A review of population initialization techniques for evolutionary algorithms," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Beijing, China), pp. 2585–2592, 2014.
119. Xie, J., Mei, Y., Ernst, A., Li, X., and Song, A., "A genetic programming-based hyper-heuristic approach for storage location assignment problem," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Beijing, China), pp. 301–307, 2014.
120. Mohammadi, A., Omidvar, M., Li, X., and Deb, K., "Integrating user preferences and decomposition methods for many-objective optimization," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Beijing, China), pp. 421–428, 2014.
121. Omidvar, M., Mei, Y., and Li, X., "Effective decomposition of large scale separable continuous functions for cooperative co-evolutionary algorithms," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Beijing, China), pp. 1305–1312, 2014.
122. Mei, Y., Li, X., and Yao, X., "Variable neighborhood decomposition for large scale capacitated arc routing problem," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Beijing, China), pp. 1313–1320, 2014.
123. Lee, G., Luo, M., Zambetta, F., and Li, X., "Learning a super mario controller from examples of human play," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Beijing, China), pp. 1–8, 2014.
124. Raffaele, W., Zambetta, F., and Li, X., "Neuroevolution of content layout in the PCG: Angry bots video game," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Cancun, Mexico), pp. 673–680, 2013.
125. Mei, Y., Li, X., and Yao, X., "Decomposing large scale capacitated arc routing problems using a random route grouping method," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Cancun, Mexico), pp. 1013–1020, 2013.

126. Epitropakis, M., Li, X., and Burke, E., "A dynamic archive niching differential evolution algorithm for multimodal optimization," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Cancun, Mexico), pp. 79–86, 2013.
127. Kazimipour, B., Li, X., and Qin, A.K., "Initialization methods for large scale global optimization," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Cancun, Mexico), pp. 2750–2757, 2013.
128. Qin, A.K., and Li, X., "Differential evolution on the CEC-2013 single-objective continuous optimization testbed," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Cancun, Mexico), pp. 1099–1106, 2013.
129. Qin, A.K., and Li, X., "Investigation of self-adaptive differential evolution on the CEC-2013 single-objective continuous optimization testbed," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Cancun, Mexico), pp. 1107–1114, 2013.
130. Mohammadi, A., Omidvar, M., and Li, X., "A new performance metric for user-preference based multiobjective evolutionary algorithms," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Cancun, Mexico), pp. 2825–2832, 2013.
131. Mohammadi, A., Omidvar, M., and Li, X., "Reference point based multiobjective optimization through decomposition," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Brisbane, Australia), pp. 1150–1157, 2012.
132. Raffe, W., Zambetta, F., and Li, X., "A survey of procedural terrain generation techniques using evolutionary algorithms," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Brisbane, Australia), pp. 2090–2097, 2012.
133. Raffe, W., Zambetta, F., and Li, X., "Evolving patch-based terrains for use in video games," in *Proceedings of 13th Annual Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (Dublin, Ireland), ACM, pp. 363–370, 2011.
134. Omidvar, M., Li, X., and Yao, X., "Smart use of computation resource based on contribution for cooperative co-evolutionary algorithms," in *Proceedings of 13th Annual Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (Dublin, Ireland), ACM, pp. 1115–1122, 2011.
135. Carrese, R., Winarto, H., and Li, X., "An efficient strategy to incorporate designer-preferences in automated airfoil design," in *Proceedings of the 14th Australian International Aerospace Congress (AIAC)*, (Melbourne, Australia), 2011.
136. Carrese, R., Winarto, H., and Li, X., "Integrating user-preference swarm algorithm and surrogate modeling for airfoil design," in *Proceedings of 49th AIAA Aerospace Sciences Meeting (AIAA)*, (Orlando, Florida), 2011.
137. Zhai, Z., and Li, X., "A dynamic archive based niching particle swarm optimizer using a small population size," in *Proceedings of the Australian Computer Science Conference (ACSC)*, (M. Reynolds, ed.), vol. 113, 2011.
138. Lin, D., Li, X., and Wang, D., "Atavistic strategy for genetic algorithm," in *Proceeding of Advances in Swarm Intelligence - Second International Conference (ICSI)*, Part I, vol. 6728 of *Lecture Notes in Computer Science*, Springer, pp. 497–505, 2011.
139. Omidvar, M., and Li, X., "A comparative study of CMA-ES on large scale global optimisation," in *Proceedings of the 23rd Australasian Joint Conference on Artificial Intelligence (AI)*, vol. 6464 of *Lecture Notes in Artificial Intelligence*, Springer, pp. 303–312, 2010.
140. Donate, J.P., Li, X., Gutierrez, G., and Sanchis, A., "Time series forecasting by evolving artificial neural networks using genetic algorithms and differential evolution," in *Proceedings of 2010 International Joint Conference on Neural Networks (IJCNN)*, IEEE, pp. 3999–4006, 2010.
141. Omidvar, M., Li, X., Yao, X., and Yang, Z., "Cooperative co-evolution for large scale optimization through more frequent random grouping," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Barcelona, Spain), pp. 1754–1761, 2010.

142. Omidvar, M., Li, X., and Yao, X., “Cooperative co-evolution with delta grouping for large scale non-separable function optimization,” in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Barcelona, Spain), pp. 1762–1769, 2010.
143. Li, J., Li, X., and Wood, A., “Species-based evolutionary algorithms for multimodal functions: A brief review,” in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Barcelona, Spain), pp. 4156–4163, 2010.
144. Li, X., and Deb, K., “Comparing lbest PSO niching algorithms using different position update rules,” in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Barcelona, Spain), pp. 1564–1571, 2010.
145. Wickramasinghe, W., Carrese, R., and Li, X., “Designing airfoils using a reference point based evolutionary many-objective particle swarm optimization algorithm,” in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Barcelona, Spain), pp. 1857–1864, 2010.
146. Wickramasinghe, W., and Li, X., “A distance metric for evolutionary many-objective optimization algorithms using user-preferences,” in *Proceedings of the 22nd Australasian Joint Conference on Artificial Intelligence (AI)*, vol. 5866 of *Lecture Notes in Computer Science*, Springer, pp. 443–453, 2009.
147. Wickramasinghe, W., and Li, X., “Using a distance metric to guide PSO algorithms for many-objective optimization,” in *Proceedings of 11th Annual Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (Montreal, Canada), ACM, pp. 667–674, 2009.
148. Jähne, M., Li, X., and Branke, J., “Evolutionary algorithms and multi-objectivization for the travelling salesman problem,” in *Proceedings of 11th Annual Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (Montreal, Canada), ACM, pp. 595–602, 2009.
149. Li, X., and Yao, X., “Tackling high dimensional nonseparable optimization problems by cooperatively co-evolving particle swarms,” in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Trondheim, Norway), pp. 1546–1553, 2009.
150. Allmendinger, R., Li, X., and Branke, J., “Reference point-based particle swarm optimization using a steady-state approach,” in *Proceedings of the 7th International Conference on Simulated Evolution and Learning (SEAL)*, vol. 5361 of *Lecture Notes in Computer Science*, Springer, pp. 200–209, 2008.
151. Rönkkönen, J., Li, X., Kyrki, V., and Lampinen, J., “A Generator for multimodal test functions with multiple global optima,” in *Proceedings of the 7th International Conference on Simulated Evolution and Learning (SEAL)*, vol. 5361 of *Lecture Notes in Computer Science*, Springer, pp. 239–248, 2008.
152. Wickramasinghe, W., and Li, X., “Choosing leaders for multiobjective PSO algorithms using differential evolution,” in *Proceedings of the 7th International Conference on Simulated Evolution and Learning (SEAL)*, vol. 5361 of *Lecture Notes in Computer Science*, Springer, pp. 249–258, 2008.
153. Iorio, A., and Li, X., “Improving the performance and scalability of differential evolution,” in *Proceedings of the 7th International Conference on Simulated Evolution and Learning (SEAL)*, vol. 5361 of *Lecture Notes in Computer Science*, Springer, pp. 131–140, 2008.
154. Wickramasinghe, W., and Li, X., “Integrating user preferences with particle swarms for multiobjective optimization,” in *Proceedings of 10th Annual Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (Atlanta, Georgia, USA), ACM, pp. 745–752, 2008.
155. Li, L., Li, X., and Yu, X., “Power generation loading optimization using a multiobjective constraint-handling method via PSO algorithm,” in *Proceedings of the IEEE International Conference on Industrial Informatics (INDIN)*, (DCC, Daejeon, Korea), pp. 1362–1367, 2008.
156. Li, L., Li, X., and Yu, X., “A multiobjective constraint-handling method with PSO algorithm for constrained engineering optimization problems,” in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Hong Kong), pp. 1528–1535, 2008.
157. Li, X., Branke, J., and Kirley, M., “On performance metrics and particle swarm methods for dynamic multiobjective optimization problems,” in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Singapore), pp. 1635–1643, 2007.

158. Bird, S., and Li, X., "Using regression to improve local convergence," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Singapore), pp. 1555–1562, 2007.
159. Li, X., "A multimodal particle swarm optimizer based on fitness euclidean-distance ratio," in *Proceedings of 9th Annual Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (London, England), ACM, pp. 78–85, 2007.
160. Bird, S., and Li, X., "Informative performance metrics for dynamic optimization problems," in *Proceedings of 9th Annual Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (London, England), ACM, pp. 18–25, 2007.
161. Iorio, A., and Li, X., "Rotationally invariant crossover operators in evolutionary multiobjective optimization," in *Proceeding of the Sixth International Conference on Simulated Evolution And Learning (SEAL)*, vol. 4247 of *Lecture Notes in Computer Science*, Springer, pp. 181–188, 2006.
162. Li, X., Branke, J., and Blackwell, T., "Particle swarm with speciation and adaptation in a dynamic environment," in *Proceedings of 8th Annual Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (Seattle, WA, USA), ACM, pp. 51–58, 2006.
163. Iorio, A., and Li, X., "Rotated test problems for assessing the performance of multiobjective optimization algorithms," in *Proceedings of 8th Annual Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (Seattle, WA, USA), ACM, pp. 683–690, 2006.
164. Iorio, A., and Li, X., "Incorporating directional information within a differential evolution algorithm for multiobjective optimization," in *Proceedings of 8th Annual Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (Seattle, WA, USA), ACM, pp. 691–697, 2006.
165. Bird, S., and Li, X., "Adaptively choosing niching parameters in a PSO," in *Proceedings of 8th Annual Conference on Genetic and Evolutionary Computation Conference (GECCO)*, (Seattle, WA, USA), ACM, pp. 3–9, 2006.
166. Bird, S., and Li, X., "Enhancing the robustness of a speciation-based PSO," in *Proceedings of IEEE Congress on Evolutionary Computation (CEC)*, (Vancouver, Canada), pp. 3185–3192, 2006.
167. Parrott, D., Li, X. and Ciesielski, V., "Multi-objective Techniques in Genetic Programming for Evolving Classifier Systems," in *Proceedings of the 2005 Congress on Evolutionary Computation (CEC2005)*. pp. 183–190, 2005.
168. Li, X., "Efficient Differential Evolution using Speciation for Multimodal Function Optimisation," in In H.-G. Beyer, et al., (eds.) *Proceedings of Genetic and Evolutionary Computation Conference 2005 (GECCO2005)*. pp. 873–880, 2005.
169. Iorio, A. and Li, X., "Solving Rotated Multi-objective Optimisation Problems Using Differential Evolution," in G.I. Webb and X.Yu (eds.) *Proceedings of the 17th Joint Australian Conference on Artificial Intelligence, Lecture Notes in Computer Science (LNCS 3339)*. pp. 861–872, 2004.
170. Iorio, A. and Li, X., "Solving Rotated Multi-objective Optimisation Problems Using Differential Evolution," in G.I. Webb and X.Yu (eds.) *Proceedings of the 17th Joint Australian Conference on Artificial Intelligence, Lecture Notes in Computer Science (LNCS 3339)*. pp. 861–872, 2004.
171. Iorio, A. and Li, X., "A Cooperative Coevolutionary Multiobjective Algorithm Using Non-dominated Sorting," in K. Deb, et al., (eds.) *Proceedings of Genetic and Evolutionary Computation Conference 2004 (GECCO2004), Lecture Notes in Computer Science (LNCS 3102)*. Seattle, USA. pp. 537–548, 2004.
172. Li, X., "Adaptively Choosing Neighbourhood Bests using Species in a Particle Swarm Optimizer for Multimodal Function Optimisation," in K. Deb, et al., (eds.) *Proceedings of Genetic and Evolutionary Computation Conference 2004 (GECCO2004) (LNCS 3102)*. Seattle, USA. pp. 105–116, 2004.
173. Li, X., "Better Spread and Convergence: Particle Swarm Multiobjective Optimisation using the Maximin Fitness Function," in K. Deb, et al., (eds.) *Proceedings of Genetic and Evolutionary Computation Conference 2004 (GECCO2004) (LNCS 3102)*. Seattle, USA. pp. 117–128, 2004.

174. Bernstein, Y., **Li, X.**, Ciesielski, V. and Song, A., "Improving Generalization Performance through Multiobjective Parsimony Enforcement," in K. Deb, et al., (eds.) *Proceedings of Genetic and Evolutionary Computation Conference 2004 (GECCO2004) (LNCS 3102)*. Seattle, USA. pp. 702–703, 2004.
175. Bernstein, Y., **Li, X.**, Ciesielski, V. and Song, A., "Multiobjective Parsimony Enforcement for Superior Generalization Performance," in *Proceedings of the 2004 Congress on Evolutionary Computation (CEC2004)*. pp. 83–89, IEEE Service Center, Piscataway, NJ 08855-1331, 2004.
176. Parrott, D. and **Li, X.**, "A Particle Swarm Model for Tracking Multiple Peaks in a Dynamic Environment using Speciation," in *Proceedings of the 2004 Congress on Evolutionary Computation (CEC2004)*. pp. 98–103, IEEE Service Center, Piscataway, NJ 08855-1331, 2004.
177. Iorio, A. and **Li, X.**, "Solving Rotated Multi-objective Optimisation Problems Using Differential Evolution," in *Proceedings of GECCO'04 Workshop on Self-organization in Representation for Evolutionary Algorithms - Building Complexity from Simplicity, Genetic and Evolutionary Computation Conference 2004 (GECCO2004)*, 2004.
178. Bernstein, Y. and **Li, X.**, "Critical Dynamics in Evolutionary Algorithms," in *Proceedings of the 2003 Congress on Evolutionary Computation (CEC2003)*. pp. 427-434, IEEE Service Center, Piscataway, NJ 08855-1331, 2003.
179. **Li, X.** and Dam, K.H., "Comparing Particle Swarms for Tracking Extrema in Dynamic Environments," in *Proceedings of the 2003 Congress on Evolutionary Computation (CEC2003)*. pp. 1772–1779, IEEE Service Center, Piscataway, NJ 08855-1331, 2003.
180. **Li, X.**, "A Non-dominated Sorting Particle Swarm Algorithm for Multiobjective Optimisation," in E. Cantu-Paz et al.,(eds.) *Proceedings of Genetic and Evolutionary Computation Conference 2003 (GECCO2003) (LNCS 2723)*. Chicago, USA. pp. 37–48 (**The winner of 2013 ACM SIGEVO research impact award**), 2003.
181. **Li, X.**, "A Real-coded Predator-Prey Genetic Algorithm for Multiobjective Optimisation," in C.M. Fonseca et al., (eds.) *Proceedings of The Second International Conference on Evolutionary Multi-Criterion Optimisation (LNCS 2632)*. pp. 207–221, 2003.
182. **Li, X.** and Sutherland, S., "A Cellular Genetic Algorithm Simulating Predator-Prey Interactions," in L. Wang et al., (eds.) *Proceedings of the 4th Asia-Pacific Conference on Simulated Evolution And Learning (SEAL2002)*, Singapore, pp. 76-80, 2002.
183. Iorio, A. and **Li, X.**, "Parameter Control within a Co-operative Co-evolutionary Genetic Algorithm," in J.J. Merelo Guervos et al., (eds.) *Proceedings of The Seventh International Conference on Parallel Problem Solving from Nature - PPSN VII, Lecture Notes in Computer Science (LNCS 2439)*, pp. 247–256, 2002.
184. **Li, X.** and Kirley, M., "The Effects of Varying Population Density in a Fine-grained Parallel Genetic Algorithm," In *Proceedings of the 2002 Congress on Evolutionary Computation 2002 (CEC2002)*, vol: 2, pp. 1709 -1714, 2002.
185. Gamble, T. and **Li, X.**, "Emergence of Cooperation in the IPD Game using Spatial Interactions," in *Proceedings of the Sixth Australia-Japan Joint Workshop on Intelligent and Evolutionary Systems*, Canberra, Australia, pp. 109–116, 2002.
186. **Li, X.** and Magill, W., "Critical Density in a Fire Spread Model with Varied Environmental Conditions", in *Proceedings of the Inaugural Workshop on Artificial Life, the 14th Australian Joint Conference on Artificial Intelligence*, pp. 27-39, December 2001.
187. **Li, X.**, "Visualization of a Parallel Genetic Algorithm in Real Time," in *Proceedings of the Sixth International Computer Science Conference - Active Media Technology, (LNCS 2252)*. Hong Kong. pp. 335–346, 2001.
188. **Li, X.**, "Comparison of Neural Networks and an Optical Thin-Film Multilayer Model for Connectionist Learning," in *Proceedings of INNS-IEEE International Joint Conference on Neural Networks*. Washington, DC. pp. 1727-1732, 2001.

189. Li, X., "On Comparison of Neural Networks and an Optical Thin-Film Multilayer Model for Connectionist Learning," in *Proceeding of SCAI 2001*, pp. 111-122, 2001.
190. Li, X., "Investigation on Critical Density in a Fire Spread Model using a Multi-agent Approach," in *Proceedings of SwarmFest 2001*. Santa Fe Institute, New Mexico, 2001.
191. Li, X., "A Parallel Genetic Algorithm Implemented in Swarm," in *Proceedings of SwarmFest 2001*. Santa Fe Institute, New Mexico, 2001.
192. Magill, W. and Li, X., "Multi-agent Approach for Simulating Bush Fire Spread," in R. Mizoguchi and J. Slaney (eds.) *Proceedings of The Sixth Pacific Rim International Conference on Artificial Intelligence (PRICAI 2000)*, LNAI 1886, Springer, pp.814, 2000.
193. Li, X. and Wilson, B., "Modelling Watertable Fluctuations in Acid Sulphate Soils, Tweed Heads Using Artificial Neural Networks," in *Proceedings of AI'99: Application Symposium, 12th Australian Joint Conference on Artificial Intelligence*. pp. 29-37, 1999.
194. Li, X. and Purvis, M.K., "An Optical Thin-Film Multilayer Model For Connectionist Learning," in *Proceedings of ICCIMA'98, the International Conference on Computational Intelligence and Multimedia Applications 1998*, edited by H. Selvaraj and B. Verma, B., World Scientific Publishing Co. Pte. Ltd., Singapore, pp. 258-263, 1998.
195. Kirley, M., and Green, D.G., "An investigation of a Cellular Genetic Algorithm that mimics evolution in a landscape," *Lecture Notes in Artificial Intelligence (LNAI 1585)*, edited by B. McKay, et al., Springer-Verlag, 1998.
196. Yamamoto, T. and Kirley, M. and Li, X., "Species Abundance Adapted to the Energy Flow in Ecosystem Simulations," in R. Pfeifer et al. (eds) *The Proceedings of The Fifth International Conference of The Society for Adapted Behaviour*, MIT Press, pp. 291-296, 1998.
197. Yamamoto, T. and Li, X., "Non-linearly connected cross-scale interaction in a cellular network," in *Proceedings of 1997 International Symposium on Nonlinear Theory and its Applications*, Vol.2, Hawaii, pp. 925-928, 1998.
198. Li, X., "Using Genetic Algorithms for an Optical thin-Film Learning Model," in *Proceedings of Australia-Japan Joint Workshop on Intelligent and Evolutionary Systems*, Canberra, Australia, pp. 126-130, 1997.
199. Purvis, M.K. and Li, X., "Connectionist Learning Using an Optical Thin-Film Model," in *Proceedings of the 15th World Congress on Scientific Computation, Modelling and Applied Mathematics - Artificial Intelligence and Computer Science*," Vol. 4, edited by Achim Sydow, Wissenschaft & Technik Verlag, Berlin, pp. 239-244, 1997.
200. Purvis, M.K. and Li, X., "Connectionist Learning Using Optical Thin-Film Model," in *Proceedings of the 2nd New Zealand International Two-Stream Conference on Artificial Neural Networks and Expert Systems*, IEEE Computer Society Press, Los Alamitos, California, pp. 63-66, 1995.
201. Li, X., "A Review on the Current Development of Mainframe and Mini-Computers," *Review of World Electronic Industry* (Chinese edition), 1990.

Other publications

1. Omidvar, M.N., Yang, M., Mei, Y., Li, X. and Yao, X., "IDG: A faster and more accurate differential grouping algorithm," University of Birmingham, School of Computer Science, *Tech. Rep. CSR-15-04*, September 2015.
2. Li, X., Tang, K., Omidvar, M.N., Yang Z., and Qin, K., "Benchmark functions for the CEC'2013 special session and competition on large scale global optimization," *Technical Report, Evolutionary Computation and Machine Learning Group, RMIT University, Australia*, 2013.
3. Li, X., Engelbrecht, A., and Epitropakis, M.G., "Benchmark functions for CEC'2013 special session and competition on niching methods for multimodal function optimization," *Technical Report, Evolutionary Computation and Machine Learning Group, RMIT University, Australia*, 2013.

4. Tang, K., Li, X., Suganthan, P.N., Yang, Z., and Weise, T., "Benchmark functions for the CEC'2010 special session and competition on large scale global optimization," in *Technical Report, Nature Inspired Computation and Applications Laboratory, USTC, China*, 2010.
URL:<http://nical.ustc.edu.cn/cec10ss.php>.

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