Yong Zhang

Professor (SIAT), Honorary Professor (HKU)
BSc, PhD (Fudan)
IEEE Senior member, ACM member, CCF Senior member

Phone: +86 18565755801
Email：   zhangyong@siat.ac.cn

Interests

Design and Analysis of Algorithms
Online Algorithms and Approximation Algorithms for NP-hard problems
Distributed Computing
Algorithmic Game Theory
Computation Complexity

Education

- ➢ **Ph. D.**   Feb. 2004 – Jan. 2007
  Advisor: Prof. Hong Zhu
  Dept. of Computer Science & Engineering, Fudan University, China
- ➢ **M. S.**   Sep. 2001 – Jan. 2004
  Advisor: Prof. Hong Zhu
  Dept. of Computer Science & Engineering, Fudan University, China
- ➢ **B. S.**   Sep. 1995 – June 1998
  Dept. of Electronic & Engineering, Fudan University, China
- ➢ Undergraduate student   Sep. 1994 – June 1995
  Dept. of Mathematics, Fudan University, China

Working Experience

- ➢ **Professor**   Dec. 2018– Now
  Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences
- ➢ **Associate Professor**   April 2011 – Dec. 2018
  Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences
- ➢ **Senior Researcher**   Feb. 2008 – April 2011
  Dept. of Computer Science, the University of Hong Kong, Hong Kong
  Area: optimization problems in wireless communication networks
- ➢ **Postdoctoral Fellow**   May 2007 – Nov. 2007
  Institut für Mathematik, Technische Universität Berlin, Germany
  Area: Algorithm Design and Combinatorial Optimization
- ➢ **Research Assistant**   Nov. 2004 – May 2007

Advisor: Prof. Francis Y. L. Chin and Dr. Joseph Wun-Tat Chan
Dept. of Computer Science, the University of Hong Kong, Hong Kong
Area: Online algorithms in wireless communication networks, Broadcast Scheduling,

➤ **Research Assistant**   Sep. 2001 – Dec. 2006
Advisor: Prof. Hong Zhu
Dept. of Computer Science and Engineering, Fudan University, China
Area: Approximation algorithms for NP-hard problems

Teaching Experience

➤ **Instructor**   Algorithms for Big Data   2021
                        for Ph.D. students
➤ **Instructor**   Online Algorithms   2020
                        for Ph.D. students
➤ **Instructor**   Advanced Algorithms   2016-2019
                        for Ph.D. students
➤ **Instructor**   Design and Analysis of Algorithms   2013-2018
                        for graduate students

Honors and Awards.

➤ **Best paper award** in FAW 2020
Vincent Chau, Chi Kit Ken Fong, Shengxin Liu, Elaine Yinling Wang and Yong Zhang, Minimizing Energy on Homogeneous Processors with Shared Memory
➤ **Best paper award** in WASA 2020
Yifei Zou, Minghui Xu, Yicheng Xu, Yong Zhang, Bei Gong and Xiaoshuang Xing, Distributed Data Aggregation in Dynamic Sensor Networks
➤ **Best paper award** in IIKI 2019
Dongxiao Yu, Yifei Zou, Yong Zhang, Feng Li, Shikun Shen and Falko Dressler, Optimal Distributed Leader Election without Decoding
➤ Outstanding Teacher Award, Chinese Academy of Sciences, 2020

Projects:

1. Vassilis Zissimopoulos, CAS President's International Fellowship, 2021
2. Research on facility location based resource assignment, NSFC, 2021-2024
3. Rolf Hermann Moehring, CAS President's International Fellowship, 2020
4. Jacek Blazewicz, CAS President's International Fellowship, 2020
5. Vassilis Zissimopoulos, CAS President's International Fellowship, 2020
6. Vincent Chau, CAS President's International Fellowship, 2020-2022
7. Distributed Dynamic Networking and Collaborative Search for Multiple Robots, Shenzhen Innovation Research Grant, 2019-2020.
8. Collaborative Multiple Robots Search in Graphs, Shenzhen Basic Research Grant, 2019-2020.

9. Vassilis Zissimopoulos, CAS President's International Fellowship, 2019
10. Vincent Chau, CAS President's International Fellowship, 2018-2019
11. Collaborative Mobile Robot Search and Evacuation, Hong Kong GRF 17210017, Co-PI, 2017-2019.
12. Analyzing, Predicting and Controlling the Complex Network Behaviors with Multi-language Big Data, NSFC Key Project, 2015-2019.
13. Environmental and Supporting Service in National High Performance Computing, The National Key Research and Development Program of China, 2016-2018.
14. Connectivity Analysis and Sub-graph Mining in Large Scale graphs. Basic Research Program in Shenzhen, 2016-2018
15. Design and Analysis of Online Algorithms, Outstanding Young People Funding in Hebei, 2013-2015
16. Online Optimization Algorithms on Wireless Communication Networks, Basic Research Program in Shenzhen, 2013-2014.
17. Graph Coloring and Network Discovery—Two Optimization Problems in Wireless Networks, 2012-2015.
18. Community Analysis in Social Networks. Key Project in Chinese Academy of Sciences, 2012-2015.
19. Cache Partitioning and Scheduling for Multi-core Processors, Small Project Funding of HKU, 2010-2012.
20. Online Optimization Algorithms on Wireless Communication Networks, Small Project Funding of HKU, 2010-2011.

Research Activities:

Technical Committee:
- CCF Theoretical Computer Science
- CAAI Intelligent service
- The Mathematical Programming Branch of OR Society of China

Editorial
- Tsinghua Science and Technology
- Wireless Communication and Mobile Computing
- Journal of Computer Science and Technology
- Mathematical Foundations of Computing

Conference Chair:
- The 21st International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT 2020)
- The 11th International Symposium on Parallel Architectures, Algorithms and Programming (PAAP 2020)

Program Chair:
- The 28th International Computing and Combinatorics Conference (COCOON 2022), Shenzhen, China

Organization Chair:
- The 3rd International Conference on Big Data and Security (ICBDS 2021)
- The 24th International Symposium on Algorithms and Computation (ISAAC 2013)
- The 10th conference on Theory and Applications of Models of Computation (TAMC 2013)

Publications Chair:
- The 22st International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT 2021)

TPC Member:
- The 19th IEEE International Symposium on Parallel and Distributed Processing with Applications (IEEE ISPA 2021)
- The 15th Annual International Conference on Combinatorial Optimization and Applications (COCOA 2021)
- The 22st International Conference on Parallel and Distributed Computing, Applications and Technologies (PDCAT 2021)
- The 7th International Conference on Big Data Computing and Communications (BIGCOM 2021)
- The 39th National Conference of Theoretical Computer Science (NCTCS 2021)
- The 14th Annual International Conference on Combinatorial Optimization and Applications (COCOA 2020)
- The 15th international conference on algorithms, systems, and applications of wireless networks (WASA2020)
- The 38th National Conference of Theoretical Computer Science (NCTCS 2020)
- The Fourteenth International Frontiers of Algorithmics Workshop (FAW 2020)
- The 37th National Conference of Theoretical Computer Science (NCTCS 2019)
- The 13th Annual International Conference on Combinatorial Optimization and Applications (COCOA 2019)
- The 12th Annual International Conference on Combinatorial Optimization and Applications (COCOA 2018)
- The 4th International Conference on Cyber Security and Cloud Computing (IEEE CSCloud 2017)
- The IEEE International Conference on Smart Cloud 2016 (SmartCloud 2016)
- The Second International Conference on Networking and Computing
- The 2nd International Workshop on Security & Optimization for Wireless Networks
- The 1st International Workshop on Security & Optimization for Wireless Networks

Publication

Books：
1. 张涌，蜂窝网络中的在线频率分配研究，电子工业出版社，2018
2. Feng Zhang, Yong Zhang, Qiang Hua, Chunru Dong, Yajun Zhao, Group Decision Making Models Based on Multi-Granular Information, Science Press, 2017

Journal Publications:

1. Zisen Fang, Fumin Qi, Yichuan Dong, Yong Zhang, and Shengzhong Feng, Parallel Tensor Decomposition with Distributed Memory based on Hierarchical SVD, to appear in **Concurrency and Computation: Practice and Experience**

2. Yang Wang, Hao Dai, Xinxin Han, Pengfei Wang, Yong Zhang*, Cheng-Zhong Xu, Cost-Driven Data Caching in Edge-based Content Delivery Networks, to appear in IEEE Transactions on Mobile Computing (**TMC),** 10.1109/TMC.2021.3108150

3. Xinxin Han, Guichen Gao, Yang Wang, Hing-Fung Ting, Ilsun You, Yong Zhang*, Online Data Caching in Edge Computing, to appear in **Concurrency and Computation: Practice and Experience.** 2021; e6468. https://doi.org/10.1002/cpe.6468

4. Yifei Zou, Dongxiao Yu, Jiguo Yu, Yong Zhang, Falko Dressler, Xiuzhen Cheng, Distributed Byzantine-resilient Multiple-message Dissemination in Wireless Networks, **IEEE/ACM Transactions on Networking**, 29(4): 1662-1675 (2021)

5. Dongxiao Yu, Yifei Zou*, Yong Zhang, Hao Sheng, Weifeng Lv, Xiuzhen Cheng, An Exact Implementation of the Abstract MAC Layer via Carrier Sensing in Dynamic Networks. **IEEE/ACM Transactions on Networking**, 29 (3), June 2021, pp. 994-1007. DOI: 10.1109/TNET.2021.3057890. (CCF A, IF 3.315)

6. Dongxiao Yu, Yifei Zou, Jiguo Yu, Yong Zhang, Feng Li, Xiuzhen Cheng, Falko Dressler, Francis Lau, Implementing Abstract MAC Layer in Dynamic Networks. **IEEE Transactions on Mobile Computing (TMC)**, 20(5): 1832-1845 (2021), doi: 10.1109/TMC.2020.2971599.

7. Guichen Gao, Xinxin Han, Li Ning, Hing-Fung Ting, Yong Zhang, Principal-Agent Problem under the Linear Contract, to appear in **Journal of Combinatorial Optimization**

8. Dongxiao Yu, Yifei Zou, Minghui Xu, Yicheng Xu, Yong Zhang, Bei Gong, Xiaoshuang Xing, Competitive Age of Information in Dynamic IoT Networks, to appear in **IEEE Internet of Things Journal**, doi: 10.1109/JIOT.2020.3038595.

9. Vincent Chau, Chi Kit Ken Fong, Shengxin Liu, Elaine Yinling Wang and Yong Zhang, Minimizing Energy on Homogeneous Processors with Shared Memory, **Theoretical Computer Science**, Volume 866, 18 April 2021, Pages 160-170.

10. Zhihuai Chen, Ken C.K. Fong, Minming Li, Kai Wang, Hongning Yuan, Yong Zhang, Facility Location Games with Optional Preference, **Theoretical Computer Science**, Volume 847, 22 December 2020, Pages 185-197

11. Guichen Gao, Li Ning, Yong Zhang, Hing-Fung Ting, Yicheng Xu, Yifei Zou, Approximation Algorithms for the Partial Assignment Problem, **Theoretical Computer Science**, Volume 838, 24 October 2020, Pages 231-237

12. Pan Li, Qiang Hua, Zhijun Hu*, Hing-Fung Ting, Yong Zhang, Approximation Algorithms for the Selling with Preference, **Journal of Combinatorial Optimization**, 40, pages366–378(2020).

13. Yifei Zou, Minghui Xu, Hao Sheng, Xiaoshuang Xing, Yicheng Xu, Yong Zhang, Crowd Density Computation and Diffusion via Internet-of-Things, in **IEEE Internet of Things Journal**, vol. 7, no. 9, pp. 8111-8121, Sept. 2020, doi: 10.1109/JIOT.2020.2999723.

14. Yicheng Xu, Vincent Chau, Chenchen Wu, Yong Zhang, Yifei Zou, Online Joint Placement and Allocation of Virtual Network Functions with Heterogeneous Servers, In **IEEE Internet of Things Journal**, vol. 7, no. 9, pp. 8049-8058, Sept. 2020, doi: 10.1109/JIOT.2020.2990412.

15. Yicheng Xu, Rolf H. Möhring, Dachuan Xu, Yong Zhang, Yifei Zou. A constant FPT approximation algorithm for hard-capacitated k-means, **Optimization and Engineering** 21, 709–722 (2020).

16. Jinzhi Lin, Shengzhong Feng, Zhile Yang, Yun Zhang, Yong Zhang, A Novel Deep Neural Network Based Approach for Sparse Code Multiple Access, **Neurocomputing**, Volume 382, 21 March 2020, Pages 52-63.

17. Yishui Wang Dongmei Zhang, Peng Zhang and Yong Zhang, Local Search Algorithm for the Squared Metric k-Facility Location Problem with Linear Penalties, **Journal of Industrial & Management Optimization**. July   2021, 17(4): 2013-2030, Q3

18. Yong Zhang, Francis Y.L. Chin, Sheung-Hung Poon, Hing-Fung Ting, Dachuan Xu, Dongxiao Yu, Offline and Online Algorithms for Single-Minded Selling Problem, **Theoretical Computer Science**, Volume 821, 12 June 2020, Pages 15-22.

19. Qiang Xu, Yong Zhang, Yangjie Xu, Yulin Jiang, Automatically Learn Cost-constrained Convolutional Neural Network Architectures with Reinforcement Learning, 集成技术, 8(3), 42-54, 2019

20. Yanjun Jiang, Yishui Wang, Dachuan Xu, Ruiqi Yang, Yong Zhang, Streaming algorithm for maximizing a monotone non-submodular function under d- knapsack constraint, **Optimization Letters**, pp. 1-14, 2019.

21. Xuejian Zhang, Zhongying Zhao, Yong Zhang, Jianli Zhao, An interpretable and scalable recommendation method based on network embedding, to appear in **IEEE ACCESS**

22. Rong Zhou, Chun Chen, Liqun Sun, Francis C.M. Lau, Sheung-Hung Poon and Yong Zhang, Online Uniformly Inserting Points on the Sphere, **Algorithms** 2018, 11, 156; doi:10.3390/a11100156

23. Li Ning, Rong Zhou, Yong Zhang, Optimizing The Constrained Estimate of the Random Walks, **IEEE ACCESS** 2018 (Vol 6), pp. 58682-58686.

24. Yong Zhang, Francis Y.L. Chin, Francis C.M. Lau, Haisheng Tan and Hing-Fung Ting, Constant Competitive Algorithms for Unbounded One-Way Trading under Monotone Hazard Rate, **Mathematical Foundations of Computing**, November 2018, 1(4): 383-392.

25. Zhongying Zhao, Wenqiang Liu, Yuhua Qian, Liqiang Nie, Yilong Yin; Yong Zhang, Identifying Advisor-advisee Relationships from Co-author Networks via a Novel Deep Model, **Information Sciences**, 2018, 466, 258-269.

26. Rong Zhou, Yong Zhang, Sheng-Zhong Feng and Nurbol Luktarhan, A Novel Hierarchical Clustering Algorithm based on Density Peaks for Complex Data Sets, **Complexity**, Volume 2018, Article ID 2032461

27. Lili Mei, Deshi Ye, Yong Zhang, Approximation Strategy-Proof Mechanisms for Obnoxious Facility Location on a Line, **Journal of Combinatorial Optimization** August 2018, Volume 36, Issue 2, pp 549–571.

28. Jian-Yu Shi, Jia-Xin Li, Bo-Lin Chen, Yong Zhang, Inferring Interactions between Novel Drugs and Novel Targets via Instance-Neighborhood-Based Models, **Current Protein & Peptide Science**, (IF= 2.576) 2017. 19(5): 488 – 497

29. Zhongying Zhao, Yong Zhang, Chao Li, Li Ning, Jiancong Fan and Shengzhong Feng, A System to Manage and Mine Microblogging Data, **Journal of Intelligent & Fuzzy Systems** 2017 , 33 (1) :1-11.

30. Yong Zhang, Joseph Chan, Francis Chin, Hingfung Ting, Deshi Ye and Feng Zhang: On the Complexity of Constrained Sequences Alignment Problems, **Journal of Combinatorial Optimization**, Volume 32 Issue 1, July 2016, Pages 79-94.

31. Tianhao Wang, Yong Zhang, Francis Y.L. Chin, Hing-Fung Ting, Yung H. Tsin, Sheung-Hung Poon, A Simple Algorithm for Finding All k-edge-connected Components, **PLoS ONE** 10(9): e0136264. doi: 10.1371/journal.pone.0136264.

32. Francis Chin, Bin Fu, Shuguang Han, Jueliang Hu, Minghui Jiang, Guohui Lin, Hingfung Ting, Luping Zhang, Yong Zhang and Diwei Zhou: Competitive Algorithms for Unbounded One-Way Trading, **Theoretical Computer Science**, 607(1), pp. 35-48.

33. Zhongying Zhao, Chao Li, Yong Zhang, Joshua Zhexue Huang, Jun Luo, Jianping Fan, Identifying and Analyzing Popular Phrases Multi-dimensionally in Social Media Data, **International Journal of Data Warehousing and Mining** (IJDWM), vol. 11 (3), 96-111, 2015.

34. Yong Zhang, Francis Y.L. Chin, Hing-Fung Ting, Xin Han, Chung Keung Poon, Yung H. Tsin Deshi Ye: Online Algorithms for 1-Space Bounded 2-Dimensional Bin Packing and Square Packing, **Theoretical Computer Science**, Volume 554, 16 October 2014, Pages 135–149.

35. Yong Zhang, Francis Chin, Hing-Fung Ting: Constant-Competitive Tree Node Assignment, **Theoretical Computer Science**. Volume 518, 23 January 2014, Pages 10–21.

36. Yong Zhang, Francis Chin, Hing-Fung Ting: Online Pricing for Bundles of Multiple Items, **Journal of Global Optimization** 58(2): 377-387 (2014).

37. Ruixin Ma, Gyorgy Dosa, Xin Han, Hing-Fung Ting, Deshi Ye, Yong Zhang: A note on a selfish bin packing problem, **Journal of Global Optimization** (2013) 56:1457–1462.

38. Ming-Yang Kao, Henry C. M. Leung, He Sun, Yong Zhang: Deterministic Polynomial-Time Algorithms for Designing Short DNA Words, **Theoretical Computer Science** Volume 494, 8 July 2013, Pages 144–160.

39. Yong Zhang, Francis Chin, Hing-Fung Ting, Xin Han, Online algorithms for 1-space bounded multi dimensional bin packing and hypercube packing, **Journal of Combinatorial Optimization** August 2013, Volume 26, Issue 2, pp 223-236.

40. Yong Zhang, Francis Y.L. Chin, Hing-Fung Ting, Competitive Algorithms for Online Pricing, **Discrete Mathematics, Algorithms and Applications** Vol. 4, No. 2 (2012) 1250015.

41. Yong Zhang, Francis Chin, Hing-Fung Ting, Joseph Chan, Xin Han, and Ka-Cheong Lam: Online Call Control in Cellular Networks Revisited, **Information Processing Letters**, 112(2012) 21-25.

42. Xin Han, Francis Chin, Hing-Fung Ting, Guochuan Zhang, Yong Zhang: A New Upper Bound on 2D Online Bin Packing, **ACM Transactions on Algorithms**.7(4):50, 2011.

43. Joseph Wun-Tat Chan, Francis Y. L. Chin, Hingfung Ting, Yong Zhang: Online Tree Node Assignment with Resource Augmentation, **Journal of Combinatorial Optimization**.22(3): 359-377, 2011.

44. Yong Zhang, Zhuo Chang, Francis Y.L. Chin, Hing-Fung Ting, and Yung H. Tsin: Uniformly Inserting Points on Square Grid, **Information Processing Letters**, 111(2011) 773-779.

45. Francis Y. L. Chin, Hingfung Ting, Yong Zhang: One Space Bounded Algorithms for Two Dimensional Bin Packing, **International Journal of Foundation of Computer Science,** Volume: 21, Issue: 6(2010) pp. 875-891.

46. Joseph Wun-Tat Chan, Francis Y. L. Chin, Deshi Ye and Yong Zhang: Absolute and Asymptotic Bounds for Online Frequency Allocation in Cellular Networks, **Algorithmica** 58(2):498-515, 2010.

47. Francis Y. L. Chin, Hingfung Ting, Yong Zhang: A constant-competitive algorithm for online OVSF code assignment, **Algorithmica**, 56(1): 89-104, 2010.

48. Joseph Wun-Tat Chan, Francis Y. L. Chin, Hingfung Ting, Yong Zhang: Online Problems for Frequency Assignment and OVSF Code Assignment in Wireless Communication Networks, **SIGACT News** Vol. 40(3), pp. 86-98, 2009.

49. Xin Han, He Guo, Dawei Yin and Yong Zhang: A note on On-line Broadcast Scheduling with Deadlines, **Information Processing Letters** 109(3): 204-207 (2009).

50. Yong Zhang, Francis Y. L. Chin and Hong Zhu: A 1-local Asymptotic 13/9-competitive Algorithm for Multicoloring Hexagonal Graphs, **Algorithmica** (2009) 54:557-567.

51. Wun-Tat Chan, Francis Y. L. Chin, Deshi Ye, Guochuan Zhang and Yong Zhang: On-line Scheduling of Parallel Jobs on Two Machines, **Journal of Discrete Algorithms,** 6(1):3-10, March 2008.

52. Wun-Tat Chan, Francis Y. L. Chin, Deshi Ye, Guochuan Zhang and Yong Zhang: Online Bin Packing of Fragile Objects with Application in Cellular Networks, **Journal of Combinatorial Optimization**, 14(4):427-435, November 2007.

53. Wun-Tat Chan, Francis Y. L. Chin, Deshi Ye, Yong Zhang and Hong Zhu: Greedy Online Frequency Allocation in Cellular Networks. **Information Processing Letters**, 102(2007), 55-61.

54. Wun-Tat Chan, Yong Zhang, Stanley P. Y. Fung, Deshi Ye and Hong Zhu: Efficient Algorithms for Finding Longest Common Increasing Subsequence, **Journal of Combinatorial Optimization**, 13(3):277-288, April 2007.

55. Yong Zhang, Qi Ge, Rudolf Fleischer, Tao Jiang and Hong Zhu: Approximating the Minimal Weight Weak Vertex Cover, **Theoretical Computer Science** 363 (2006) 99-105.

56. Wun-Tat Chan, Francis Y. L. Chin, Yong Zhang, Hong Zhu, Hong Shen and Prudence W. H. Wong: A dynamic programming approach of finding an optimal broadcast schedule in minimizing total flow time, **Journal of Combinatorial Optimization**, 2006, 11(2):177-187.

57. Yong Zhang and Hong Zhu: Approximation Algorithms for the Problems of Weak Set Cover, **Chinese Journal of Computers**, 2005, 28(9):1497-1500.

58. Yong Zhang and Hong Zhu: Approximation Algorithm for Weighted Weak Vertex Cover, **Journal of Computer Science and Technology**, 2004, 19(6):782-786.

Conference Publications:

59. Lei Wang, Xiang Zhang, Yuanshuang Jiang, Yong Zhang, Chenren Xu, Ruiyang Gao, Daqing Zhang, Watching Your Phone's Back: Gesture Recognition by Sensing Acoustical Structure-borne Propagation, to appear in **UBICOMP 2021, Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies**

60. Yang Wang, Yong Zhang, Xinxin Han, Pengfei Wang, Cheng-Zhong Xu, Joseph Horton, Joseph Culberson, Cost-Driven Data Caching in the Cloud: An Algorithmic Approach, to appear in **INFOCOM 2021**

61. Yichuan Dong, Zhuo-Xu Cui, Yong Zhang, ShengZhong Feng, On the Non-ergodic Convergence Rate of The Directed Nonsmooth Composite Optimization, in **PDCAT 2020**, LNCS 12606, pp. 129-140.

62. Zisen Fang, Fumin Qi*, Yichuan Dong, Yong Zhang, ShengZhong Feng, Distributed Dense Tucker Decomposition based on Hierarchical SVD, in **PAAP 2020**, CCIS 1362, pp. 355-364

63. Xinxin Han, Guichen Gao, Yang Wang, Hingfung Ting, Yong Zhang, Data Caching Based Transfer Optimization in Large Scale Networks, in **PDCAT 2020**, LNCS 12606, pp. 330–340, 2021.

64. Yuanshuang Jiang, Linfang Hou, Zhuoye Ding, Yuxiang Liu, Yong Zhang, Shengzhong Feng, Epidemic Control Based on Reinforcement Learning Approaches, in Proc. of **PAPW 2020**.

65. Xinxin Han, Guichen Gao, Li Ning, Yang Wang, and Yong Zhang, Approximation Algorithm for the Offloading Problem in Edge Computing, in **WASA 2020**, LNCS 12384, pp. 134–144, 2020.

66. Yifei Zou, Minghui Xu, Yicheng Xu, Yong Zhang, Bei Gong and Xiaoshuang Xing, Distributed Data Aggregation in Dynamic Sensor Networks, in **WASA 2020**, LNCS 12384, pp. 822–833, 2020. **Best paper award.**

67. T-H. Hubert Chan, Li Ning, and Yong Zhang, Maximizing the Expected Influence in Face of the Non-Progressive Adversary, in **WASA 2020**, LNCS 12384, pp. 28–39, 2020.

68. Li Ning, Yong Zhang, LAC-Nav: Collision-Free Multiagent Navigation Based on The Local Action Cells, in **DAI 2020**, Lecture Notes in Computer Science, vol 12547, pp 14-28.

69. Li Ning, Yong Zhang, Search Complexity: A Way for The Quantitative Analysis of The Search Space, in **AAIM 2020**, LNCS 12290, pp. 346–357, 2020.

70. Guichen Gao, Xinxin Han, Li Ning, Hing-Fung Ting, Yong Zhang, Robustness and Approximation for the Linear Contract Design, in **AAIM 2020**, LNCS 12290, pp. 273–285, 2020.

71. T-H. Hubert Chan, Li Ning, and Yong Zhang, Influence Maximization under The Non-Progressive Linear Threshold Model, in Proc. of **FAW 2020**, Lecture Notes in Computer Science, vol 12340, pp 37-48.

72. Vincent Chau, Chi Kit Ken Fong, Shengxin Liu, Elaine Yinling Wang and Yong Zhang, Minimizing Energy on Homogeneous Processors with Shared Memory, in **FAW 2020**, LNCS, volume 12340, pp 83-95, **Best paper award.**

73. Vincent Chau, Shengzhong Feng, Minming Li, Yinling Wang, Guochuan Zhang and Yong Zhang How to schedule jobs with limited number of Calibrations, to appear in **MISTA 2019**

74. Guichen Gao, Li Ning*, Hing-Fung Ting, Yong Zhang, Yifei Zou, Algorithmic Pricing for the Partial Assignment, In Proc. of **COCOA 2019**, pp. 201-222.

75. Pan Li, Qiang Hua, Zhijun Hu, Hingfung Ting and Yong Zhang*, Approximation Algorithm and Incentive Ratio of the Selling with Preference, In Proc. of **COCOA 2019**, pp. 328-339.

76. Dongxiao Yu, Yifei Zou, Yong Zhang, Feng Li, Shikun Shen and Falko Dressler, Optimal Distributed Leader Election without Decoding, in **IIKI 2019**, Procedia Computer Science Volume 174, 2020, Pages 535-542, **Best paper award**

77. Chun Chen, Li Ning, Yong Zhang and Shengzhong Feng, Dynamic Pipelining for The Loosely-Coupled Distributed Constraint Satisfaction Problems, In Proc. of 20th International Conference on Parallel and Distributed Computing, Applications and Technologies, **PDCAT 2019**, pp. 458-463.

78. Yicheng Xu, Chenchen Wu, Dachuan Xu, and Yong Zhang, On stochastic k-facility location, In Proc. of **NACA-ICOTA 2019**.

79. Yicheng Xu, Dachuan Xu, Yong Zhang*, Juan Zou, Universal Facility Location in Generalized Metric Space, in Proc. of **COCOON 2019**, pp 591-602.

80. Jingjing Wu, Yong Zhang*, Li Ning, The Fusion Knowledge of Face, Body and Context for Emotion Recognition, In Proc. of **ICMEW 2019** workshop on Visual Emotion Analysis: Theories and Applications, pp. 108-113.

81. Vincent Chau, Minming Li, Yinling Wang, Guochuan Zhang, Yong Zhang, Throughput Maximization with Calibrations, In Proc. of **WADS 2019**, pp. 311-324.

82. Yicheng Xu, Dachuan Xu, Dongmei Zhang, Yong Zhang, A discretization algorithm for k-means with capacity constraints, In Proc. of the 6th World Congress on Global Optimization (**WCGO 2019**), pp.713-719.

83. Dongxiao Yu, Yifei Zou, Yong Zhang, Feng Li, Jiguo Yu, Yu Wu, Xiuzhen Cheng, Francis C.M. Lau, Distributed Dominating Set and Connected Dominating Set Construction in the Dynamic SINR Model, to appear in **IPDPS 2019**

84. Dongxiao Yu, Longlong Lin, Yong Zhang, Jiguo Yu, Yifei Zou, Qiang-Sheng Hua and Xiuzhen Chen, Fully Dynamic Broadcasting under SINR, to appear in **IPCCC 2018**

85. Francis Chin, Sheung-Hung Poon, Hingfung Ting, Dachuan Xu, Dongxiao Yu and Yong Zhang, Approximation and Competitive Algorithms for Single-Minded Selling Problem, in Proc. of **AAIM 2018**, LNCS 11343, pp. 98-110.

86. Li Ning, Rong Zhou, Yong Zhang, Dongxiao Yu and Francis C.M. Lau, Taking Less Detour When Avoiding the Collisions, in Proc. of **ICSSE 2018**, pp. 1-6.

87. Dongxiao Yu, Yong Zhang, Yuyao Huang, Hai Jin, Francis Lau, Exact Implementation of Abstract MAC Layer via Carrier Sensing, to appear in **INFOCOM 2018**, pp. 1196-1204.

88. Francis Y.L. Chin, Francis C.M. Lau, Haisheng Tan, Hing-Fung Ting, and Yong Zhang, Unbounded One-Way Trading on Distributions with Monotone Hazard Rate, in Proc. of **COCOA 2017**, Part I, LNCS 10627, pp. 1–11, 2017.

89. Dongxiao Yu, Li Ning, Yong Zhang, Yuexuan Wang, Hai Jin, Francis C.M. Lau, Shengzhong Feng, Uniform Information Exchange in Multi-channel Wireless Ad Hoc Networks, in Proc. of **AAMAS 2017**, pp. 1026-1034.

90. Chun Chen, Francis Lau, Sheung-Hung Poon, Yong Zhang and Rong Zhou, Online uniformly inserting points on the sphere, in Proc. of **WALCOM 2017**, LNCS 10167, pp. 243-253.

91. Zhenhua Han, Yupeng Li, Haisheng Tan, Rui Wang and Yong Zhang, Cross-Layer Protocol Design for Wireless Communication in Hybrid Data Center Networks, in Proc. of **MSN 2016**, 69-75.

92. Rong Zhou, Shuang Zhang, Chun Chen, Li Ning, Yong Zhang, Shengzhong Feng; Yi Liu, Nurbol Luktarhan, A Distance and Density-based Clustering Algorithm using Automatic Peak Detection, In Proc. of **IEEE Smartcloud 2016**, pp. 176-183.

93. Chun Chen, Zhichao Liu, Hongna Li, Rong Zhou, Yong Zhang and Renkai Liu, EEG Detection Method Based on Wavelet Transform and SVM, In Proc. of **IEEE Smartcloud 2016**, pp. 241-247.

94. Hongning Yuan, Ken C. K. Fong, Yong Zhang, Minming Li, Kai Wang, Facility Location Games with Optional Preference，in Proc. of **ECAI 2016**.

95. Li Ning, Zhongying Zhao, Rong Zhou, Yong Zhang, Shengzhong Feng, Real-time Channel Recommendation: Switch Smartly while Watching TV, In Proc. of the 10th International Frontiers of Algorithmics Workshop (**FAW 2016)**, LNCS 9711, pp. 183-193, 2016.

96. Li Ning, Dongxiao Yu, Yong Zhang, Yuexuan Wang, Francis C.M. Lau, Shengzhong Feng, Uniform Information Exchange in Multi-channel Wireless Ad Hoc Networks. In Proc. Of the 29th International Symposium on Distributed Computing, **DISC 2015**, pp 653-654.

97. Zhongying Zhao, Zheng Feng, Yong Zhang, Li Ning, Chao Li, and Jiancong Fan, Collecting, Managing and Analyzing Social Networking Data Effectively. In Proc. of the 12th International Conference on Fuzzy Systems and Knowledge Discovery (**FSKD 2015**), pp. 1676-1680.

98. Cheng Qiao, Mingming Lu, Yong Zhang, Ken Brown, An Efficient Dispatch and Decision-making Model for Taxi-booking Service, In Proc. of the 12th IEEE International Conference on Advanced and Trusted Computing (**ATC 2015**), pp. 392-398.

99. Deshi Ye, Lili Mei, Yong Zhang, Strategy-Proof Mechanism for Obnoxious Facility Location on a Line, In Proc. of the 21st Annual International Computing and Combinatorics Conference (**COCOON 2015**), pp. 45-56.

100. Jianyu Shi, Jaixin Li, Huimeng Lu, Yong Zhang, Predicting Drug-Target Interactions between New Drugs and New Targets via Pairwise K-Nearest Neighbor and Automatic Similarity Selection, in Proc. of the 2015 International Conference on Intelligence Science and Big Data Engineering (**IScIDE 2015**), pp. 466-486.

101. Lei Wang, Zhide Chen, Yong Zhang, Dominant Bidding Strategy in Mobile App Advertising Auction, in Proc. of the 11th International Conference on e-Business Engineering (**ICEBE 2014**), pp. 26-30.

102. Feng Zhang, Joshua Ignatius, Chee Peng Lim, Yong Zhang: A Hybrid Weighted Aggregation Method Based on Consistency and Consensus in Group Decision Making, in Proc. of **WCCI 2014**. FUZZ-IEEE 2014, 11-17.

103. Francis Chin, Bin Fu, Minghui Jiang, Hingfung Ting and Yong Zhang: Competitive Algorithms for Unbounded One-Way Trading, In Proc. of **AAIM 2014**, LNCS 8546, pp. 32-43.

104. Yong Zhang, Joseph Chan, Francis Chin, Hingfung Ting, Deshi Ye and Feng Zhang: On the Complexity of Constrained Sequences Alignment Problems, In Proc. of **FAW 2014**, LNCS 8497, pp. 309-319.

105. Cheng Qiao, Yong Zhang and Shenzhong Feng: Improve the Performance of Adaptive Sleep Scheduled Wireless Sensor Network, **MSN 2013**, pp. 431-436.

106. Yong Zhang, Francis Y.L. Chin, Hing-Fung Ting, Xin Han, Chung Keung Poon, Yung H. Tsin Deshi Ye: Online Algorithms for 1-Space Bounded 2-Dimensional Bin Packing and Square Packing, In Proc. of **COCOON 2013**. LNCS 7936, pp. 506-517.

107. Zhongying Zhao, Yong Zhang, Joshua Zhexue Huang, Shengzhong Feng, Jianping Fan, A Microscopic Study on Group Dynamics of the Tencent-microblogs, In Proc. of **SocialComNet-2012,** LNEE 164, Part 6, 677-685.

108. Junjie Yu, Chi Ming Leung, Siu Ming Yiu, Yong Zhang, Francis Y.L. Chin, Nathan Hobbs and Amy Y.X. Wang, Phylogenetic tree reconstruction with protein linkage, In Proc. of **ISBRA2012**, LNCS 7292, 315-327.

109. Yong Zhang, Francis Y.L. Chin, Hing-Fung Ting, Online Pricing for Multi-Type of Items, In Proc. of **FAW-AAIM 2012**, LNCS 7285, pp. 82–92, 2012.

110. Yong Zhang, Francis Y.L. Chin, Hing-Fung Ting, Competitive Algorithms for Online Pricing, In Proc. of the 17th Annual International Computing and Combinatorics Conference (**COCOON 2011**), LNCS 6842, pp. 391-401.

111. Yong Zhang, Francis Chin, Hing-Fung Ting, Xin Han, and Zhuo Chang, Online algorithm for 1-space bounded multi-dimensional bin packing, In Proc. Of the joint conference of **FAW 2011 and AAIM 2011**, LNCS 6681, pp. 309-318.

112. Yong Zhang, Jingchi Chen, Francis Y.L. Chin , Xin Han, Hingfung Ting and Yung H. Tsin: Improved Online Algorithms for 1-Space Bounded 2-Dimensional Bin Packing, In Proc. of the

21st International Symposium on Algorithms and Computation (**ISAAC 2010**), LNCS 6507, pp. 242-253.

113. Yong Zhang, Zhuo Chang, Francis Y.L. Chin, Hing-Fung Ting, and Yung H. Tsin: Online Uniformly Inserting Points on Grid, In Proc. of the Sixth International Conference on Algorithmic Aspects in Information and Management (**AAIM 2010**), LNCS 6124, pp. 281-292

114. Yong Zhang, Francis Y.L. Chin, and Hing-Fung Ting: Approximated Distributed Minimum Vertex Cover Algorithms for Bounded Degree Graphs, In Proc. of the 16th Annual International Computing and Combinatorics Conference (**COCOON 2010**), LNCS 6196, pp. 100-109.

115. Joseph Chan, Francis Chin, Xin Han, Ka-Cheong Lam, Hing-Fung Ting and Yong Zhang: Deterministic Online Call Control in Cellular Networks and Triangle-Free Networks, In Proc.of the Fourth International Frontiers of Algorithmics Workshop (**FAW 2010**), LNCS 6213, pp. 222-233.

116. Ming-Yang Kao, Henry Leung, He Sun, Yong Zhang: Deterministic Polynomial-Time Algorithms for Designing Short DNA Words, In Proc. of the 7th Annual Conference on Theory and Applications of Models of Computation (**TAMC 2010**), LNCS 6108, pp. 308-319.

117. Francis Y. L. Chin, Hingfung Ting, Yong Zhang: 1-Bounded Space Algorithms for 2-Dimensional Bin Packing, In Proc. of the 20th Annual International Symposium on Algorithms and Computation (**ISAAC 2009**), LNCS 5878, pp. 321-330.

118. Joseph Wun-Tat Chan, Francis Y. L. Chin, Hingfung Ting, Yong Zhang: Online Tree Node Assignment with Resource Augmentation, In Proc. of the 15th International Computing and Combinatorics Conference (**COCOON 2009**), LNCS 5609, pp.358-367.

119. Francis Y. L. Chin, Hingfung Ting, Yong Zhang: Variable-Size Rectangle Covering, In Proc. of the third Annual International Conference on Combinatorial Optimization and Applications (**COCOA'09**), LNCS 5573, pp. 145-154.

120. Francis Y. L. Chin, Hingfung Ting, Yong Zhang: A constant-competitive algorithm for online OVSF code assignment, In Proc. of the 18th Annual International Symposium on Algorithms and Computation (**ISAAC 2007**), LNCS 4835, pp. 452-463.

121. Wun-Tat Chan, Francis Y. L. Chin, Deshi Ye, Yong Zhang: Online frequency allocation in cellular networks, In Proc. of the 19th ACM Symposium on Parallelism in Algorithms and Architectures (**SPAA '07**), pp. 241-249.

122. Francis Y. L. Chin, Yong Zhang and Hong Zhu: A 1-Local 13/9-Competitive Algorithm for Multicoloring Hexagonal Graphs, In proc. of the 13th Annual International Computing and Combinatorics Conference (**COCOON 2007**), LNCS 4598, pp. 526-536.

123. Francis Y. L. Chin, Yong Zhang and Hong Zhu: Online OVSF Code Assignment with Resource Augmentation, In Proc. of the third International Conference on Algorithmic Aspects in Information and Management (**AAIM 2007**), LNCS 4508, pp. 191–200.

124. Wun-Tat Chan, Francis Y. L. Chin, Deshi Ye, Yong Zhang and Hong Zhu: Frequency Allocation Problem for Linear Cellular Networks, In Proc. of the 17th Annual International Symposium on Algorithms and Computation (**ISAAC 2006**), LNCS 4288, pp. 61-70.

125. Wun-Tat Chan, Yong Zhang, Stanley P. Y. Fung, Deshi Ye and Hong Zhu: Efficient Algorithms for Finding Longest Common Increasing Subsequence, In Proc. of the 16th Annual International Symposium on Algorithms and Computation (**ISAAC 2005**), LNCS 3827, pp. 665-674.

126. Wun-Tat Chan, Francis Y. L. Chin, Deshi Ye, Guochuan Zhang and Yong Zhang: Online Bin Packing of Fragile Objects with Application in Cellular Networks, In Proc. of the first Workshop

on Internet and Network Economics (**WINE 2005**). LNCS 3828, pp. 564-573.

127. Deshi Ye, Wun-Tat Chan, Francis Y. L. Chin, Guochuan Zhang and Yong Zhang: On-line Scheduling of Parallel Jobs on Two Machines, In Proc. of the 16th Australasian Workshop on Combinatorial Algorithms (**AWOCA 2005**), pp.369-380.

128. Wun-Tat Chan, Francis Y. L. Chin, Yong Zhang, Hong Zhu, Hong Shen and Prudence W. H. Wong: Off-line Algorithms for Minimizing the Total Flow Time in Broadcast Scheduling, In Proc. of the 11th Annual International Computing and Combinatorics Conference (**COCOON 2005**), LNCS 3595, pp. 318-328.

129. Yong Zhang, and Hong Zhu. An Approximation Algorithm for Weighted Weak Vertex Cover Problem in Undirected Graphs, In Proc. of the 10th Annual International Computing and Combinatorics Conference (**COCOON 2004**), LNCS 3106, pp.143-150.

130. Jiantao Song, Yong Zhang, Chaofeng Sha, and Hong Zhu: Building Semantic Peer-to-peer Networks Upon CAN. In Proc.of the 5th International Workshop on Networked Group Communications (**NGC2003**), LNCS 2816, pp. 95-106.