

CURRICULUM VITAE

Xiaohua Jia

Chair Professor, IEEE Fellow (Computer Society), ACM Distinguished Member
Dept of Computer Science, City University of Hong Kong
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Qualifications

1987 – 1991. **DSc**, University of Tokyo

1984 – 1986. **MSc**, Univ. of Science and Technology of China

1979 – 1984. **BSc**, Univ. of Science and Technology of China

Employment

2007 – Present, Chair Professor

2003 – 2007, Professor

1996 – 2003, Associate Professor

Dept of Computer Science, City University of Hong Kong

1991 – 1996, Lecturer

Dept. of Computer Science, University of Queensland, Australia

Awards

- ACM Distinguished Member, 2018
- IEEE Fellow (Computer Society), 2013.
- Professor of “Thousand Scholars” (“千人计划” 特聘教授), China, 2013
- IEEE Outstanding Service Award, 2010
- ACM Recognition of Service Award, 2008
- Tan Chin Tuan Exchange Fellowship, Nanyang Technological University, Dec 2004 – Mar 2005
- Distinguished Visiting Fellowship, La Trobe University, Australia, 2003/2004
- Fellowship of JSPS (Japan Society for the Promotion of Science), Tsukuba University, Japan, Nov 2001 – Jan 2002
- Cheung Kong Professor (长江学者特聘教授), Ministry of Education, China, 2001

Journal Editorship

- Associate Editor, IEEE Journal of Internet of Things, 2012 - 2018
- Associate Editor, IEEE Trans on Parallel and Distributed Systems, 2006 – 2009
- Editor on Board, Journal of World Wide Web: Internet and Web Information Systems (Kluwer Academic)
- Editor on Board, Journal of Combinatorial Optimization (Kluwer Academic)
- Editor on Board, Journal of Networks (Academy Publisher)
- Editor on Board, The Journal of Supercomputing (Springer), 2004 – 2007
- Editor on Board, International Journal of Wireless and Mobile Computing (Inderscience)

Major International Conference Organizations

- General Co-Chair, ACM ICN (Information Centric Networks), Sept 2019
- TPC Area-Chair, IEEE Infocom, 2017, 2016, 2015, 2010
- TPC Vice-Chair on "Mobile and Wireless Computing", IEEE International Conference on Distributed Computing Systems (ICDCS), 2019, 2015
- Director, Croucher Foundation Advanced Study Institute (ASI) on Information Security and Privacy in Social Networks and Cloud Computing, Hong Kong, Dec, 2014
- Local Organization Co-Chair, ACM SIGCOMM'13, Hong Kong, Aug 2013
- Co-Chair, The 8th International Conference on Wireless Algorithms, Systems, and Applications (WASA 2013), August, Zhangjiajie, China, 2013.
- General Chair, The 3rd IEEE International Workshop on Security and Privacy in Cloud Computing, in Conjunction with IEEE ICDCS, Macau, Jun 2012.
- Co-Chair, Co-Chair, The First IEEE International Workshop on Internet of Things: Smart Objects and Services, in conjunction with IEEE WoWMoM, SFO, USA, Jun 2012.
- TPC Co-Chair, Wireless Ad Hoc and Sensor Networks Symposium, International Conference on Computing, Networking and Communications (ICNC), Hawaii, Jan-Feb 2012.
- Panel Co-Chair, IEEE Infocom, 2011.
- TPC Co-Chair, IEEE GlobeCom 2010 - Ad Hoc and Sensor Networking Symposium, 2010.
- TPC Co-Chair, IEEE International Conference on Mobile Ad-hoc and Sensor Systems (MASS), Hong Kong, Oct 2009.
- International Liaison Co-Chair, IEEE International Conf on Distributed Computing Systems (ICDCS), Beijing, Jun 2008.
- General Chair, ACM International Symposium on Mobile Ad Hoc Networking and Computing, Hong Kong, May 2008.
- Co-Chair, Mobile Computing Symposium, in conjunction with International Wireless Communication and Mobile Computing Conf (IWCMC), 2008, 2007, 2006.
- General Co-Chair, The 2nd International Conference on Mobile Ad Hoc and Sensor Networks (MSN), 2008, 2006.
- General Co-Chair, International Workshop on Theoretical and Algorithmic Aspects of Sensor and Ad-hoc Networks, Miami, June, 2007.
- Director, Croucher Foundation Advanced Study Institute on Wireless Sensor Networks: Theory and Applications, Hong Kong, Dec, 2006.
- General Chair, First ACM/CreateNet International Conference on Scalable Information Systems (INFOSCALE), 30 May - 1 Jun 2006, Hong Kong.
- International Vice-Chair, IEEE Infocom, 2005.
- Co-Chair, NSF workshop on Theoretical Aspects of Wireless Ad Hoc Networks, Chicago, Jun 2004.
- Co-Chair, IEEE ICDCS Workshop on New Advances of Web Server and Proxy Technologies, USA, May 2003.

- Vice Co-Chair of 6th IEEE International Conf on Computer Communications and Networks (IC3N), USA, 1997.
- TPC member, IEEE INFOCOM, 2009, 2008, 2007, 2005, 2004.

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Major Administration Experience and Community Services

- Head of Department of Computer Science, City University of Hong Kong (2018 – present)
- IEEE Fellow Evaluation Committee Member (Computer Society), 2019, 2018, 2016 - 2014
- CityU Outstanding Research Award Committee (2014 – 2019)
- Member of Technology Advisory Panel, Hong Kong Science & Technology Parks (2010 – 2018)
- Member of Working Group on Mainland Research Students Collaboration, CityU (2010 - present)
- Member of College Committee, CSE, CityU (2012 – 2016)
- Member of Board of Graduate Studies (BGS), CityU (2012 - present)
- Member of Committee on Research Degrees Candidature (CRDC), CityU (2012 - present)
- Member of NSFC/RGC Joint Research Scheme Joint Selection Committee (2010 – 2013)
- Member of HK RGC Engineering Panel (2007 – 2013)

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Research Grants (PI only)

- 1) A Secure and Verifiable P2P Storage Framework with Dynamic Encrypted Search using Blockchain, RGC GRF grant (CityU 11202419), HK\$731,089, 1 Jan 2020 – 31 Dec 2022
- 2) Privacy-preserving Task Recommendation for Cloud-based Crowdsourcing, RGC GRF grant (CityU 11208917), HK\$700,000, 1 Jan 2018 – 31 Dec 2020
- 3) Security and Privacy-enhancing Technologies for Cloud Storage of Big Data, RGC CRF (Collaborative Research Grant) grant (CityU C1008-16G), HK\$5,983,404, 1 Jul 2017 – 30 Jun 2020
- 4) 泛在网安全搜索基础理论与技术, NSF China Key Project (Grant No. 61732022), RMB\$3,250,000, 1 Jan 2018 – 31 Dec 2022
- 5) [面向云数据高级查询的可搜索加密模型与关键技术](#), NSF China (Grant No. 61672195), RMB\$630,000, 1 Jan 2017 – 31 Dec 2020
- 6) A Wireless and Distributed Control Plane Network for Data Centers, RGC GRF grant (CityU 11214316), HK\$675,647, 1 Jan 2017 – 31 Dec 2019
- 7) Generalized Pattern Matching String Search on Encrypted Data, RGC GRF grant (CityU11204215), HK\$871,036, 1 Jan 2016 – 31 Dec 2018
- 8) Information Security and Privacy in Social Networks and Cloud Computing, The Croucher Foundation ASI (Advanced Study Institute), (CityU 9500021), Dec 2014, HK\$410,000
- 9) Privacy-Preserving Algorithms for Outsourced Data Mining in Cloud Computing, RGC GRF grant (CityU 9042037), HK\$692,894, 1 Jan 2015 – 31 Dec 2017

- 10) Information Centric Networks and Software Defined Networks for Cloud Services, funded by Huawei Technology Co Ltd, HK\$1,395,000, Sept 2013 – Aug 2015.
- 11) Minimal Cost and Time-sensitive Information Diffusion in Online Social Networks, RGC GRF grant (CityU 9041886), HK\$645,500, 1 Sept 2013 – 31 Aug 2016.
- 12) Data Integrity Auditing and Access Control for Cloud Storage Systems, RGC GRF grant (CityU 114112), HK\$700,000, 1 Sept 2012 – 31 Aug 2015.
- 13) 压缩传感在无线传感器网络应用中的关键技术研究 (Algorithmic Issues of Using Compressive Sensing in Wireless Sensor Networks), NSF China (Grant No. 61173137), RMB\$590,000, Jan 2012 – Dec 2015.
- 14) Minimal Cost Deployment of Multi-radio and Multi-rate Wireless Mesh Networks with QoS Requirements in Indoor Environment, funded by RGC RGF grant (No. CityU 114710), HK\$652,671, Jan 11 - Dec 13.
- 15) 多信道多收发器传感器网络的低时延数据分发、聚合和收集研究 (Low Latency Data Dissemination, Aggregation and Collection in Multi-Radio and Multi-Channel Wireless Sensor Networks), funded by NSF China, RMB\$290,000, Jan 2010 – Dec 2012.
- 16) Minimum Latency Transmission Scheduling for Multi-radio, Multi-channel and Multi-hop Wireless Networks, funded by CityU SRG (grant No. 7008041), HK\$180,000, Sept 09 – Aug 2011.
- 17) The Impact of Multiple Radios and Multiple Channels on Communication Latency in Multihop Wireless Networks, funded by CityU SRG (grant No. 7002359), HK\$180,000, Sept 08 – Aug 10.
- 18) Max-Lifetime Sleep Scheduling for Surveillance Applications of Wireless Sensor Networks, funded by RGC CERG grant (CERG No. CityU 114307), HK\$871,200, Jan 08 - Dec 10.
- 19) 可信移动互联网的关键理论与应用研究 (Trustworthy Mobile Internet: Theory and Applications), NSF China Key Project, RMB\$2,000,000, Jan 2007 – Dec 2010.
- 20) Topology Control of Wireless Mesh Networks, consultant project funded by Huawei Technology Co Ltd, HK\$400,000, Jul 2007 – Jun 2009.
- 21) Minimum Latency Communication Schedules for Information Dissemination and Aggregation in Wireless Ad Hoc and Sensor Networks, funded by RGC CERG grant (CERG No. CityU 114006), HK\$876,780, Jan 07 - Dec 09.
- 22) Energy Efficient Query Dissemination and Real-time Data Aggregation in Wireless Sensor Networks, funded by RGC CERG grant (CERG No. CityU 114505), HK\$378,700, Jan 06 – Dec 07.
- 23) Virtual Backbone Construction in Multihop Ad Hoc Wireless Networks, funded by RGC CERG grant (CERG No. CityU 1149/04E), HK\$339,414, Dec 04 – Nov 06.
- 24) Data Replication and Consistency Control in Content Distribution Networks (CDN)s, funded by CityU SRG (grant No. 7001590), HK\$178,000, Sept 04 – Aug 06.
- 25) Proxy placement and data replication for content distribution networks, funded by RGC CERG grant (CERG No. CityU 1209/03E), Co-I: Andy Yao, HK\$324,000, Dec 03 – Nov 05.
- 26) Proxy Server Selection under Budget Constraint for CDNs, funded by CityU Strategic Research Grant (No.7001438), HK\$197,000, Sept 03 – Aug 05.
- 27) Web 代理最优安放与数据对象最优复制方法研究 (Optimal Web Proxy Placement and Data Replications in CDNs) funded by NSF China (grant No. 60273071), RMB\$76,000, Jan 2003 – Dec 2003.
- 28) Adaptive and Efficient QoS Multicast Routing Methods for Mobile Ad Hoc Networks (MANETs), funded by RGC CERG grant (CERG No. CityU 1079/02E), HK\$413,404, Dec 02 – Nov 04.

- 29) QoS multicast routing and topology control for ad hoc networks, funded by CityU Strategic Research Grant (No.7001346), HK\$247,660, Sept 02 – Aug 04.
- 30) Placement of Proxies for Mirrored Web Servers, funded by CityU Strategic Research Grant (No.7001182), HK\$249,425, Sept 01 – Aug 03.
- 31) Real-time Multicast Routing in WDM Networks, funded by CityU Strategic Research Grant (No. 7001121, 7001297 with C.H.Lee), HK\$250,000, Oct 00 – Sept 02.
- 32) Routing and Wavelength Assignment for Multicast Communications in WDM networks, funded by CityU Strategic Research Grant (No.7001035), HK\$279,816, Sept 00 – Aug 02.
- 33) Co-PI, Dynamic Steiner Problems for Group Communications, funded by RGC Competitive Earmarked Research Grant (CERG No. 9040445), HK\$405,000, Dec 99 – Nov 01.
- 34) A real-time distributed unconstrained cooperative editing system, funded by RGC Competitive Earmarked Research Grant (CERG No.9040442), HK\$425,000, Sept 99 – Aug 01.
- 35) Real-time multicast connection establishment in ATM networks, funded by British Council & RGC (No. 9050128), HK\$78,000, Jul 99 – Jun 00.
- 36) A real-time multicast connection establishment scheme for high speed networks, funded by CityU Strategic Research Grant (No. 7000927), HK\$279,000, Feb 99 – Jul 01.
- 37) Multi-rate Switching Networks, funded by CityU Strategic Research Grant (No. 7000778), HK\$270,000, Aug 98 – Jul 2000.
- 38) Real-time multicast communications, funded by CityU Strategic Research Grant (No. 7000677), HK\$267,450, Aug 97 – Jul 1999.
- 39) Real-time multicast channel establishment, funded by Small Scale Research Grant (No. 9030528) at City U of HK, HK\$39,690, 1996 – 97.
- 40) A hierarchy framework for designing distributed systems, funded by CityU Strategic Research Grant (No. 7000641) at City U of HK, HK\$308,000, Jan 97 – Dec 98.
- 41) A reliable architecture for building distributed systems, funded by Australian Research Council (ARC) grant (No. A4941290), AUS\$17,200, 1993 - 1995.
- 42) A New Computational Model for Concurrent and Parallel Processing (1992), funded by New Staff Research Grant at the Univ. of Queensland, AUS\$27,000, 1992.

Selected Journal Articles (see dblp for complete list)

- [1] Yan Liang, Wenzheng Xu, Weifa Liang, Jian Peng, Xiaohua Jia, Yingjie Zhou, Lei Duan, “Nonredundant Information Collection in Rescue Applications via an Energy-Constrained UAV,” *IEEE Internet of Things Journal* 6(2): 2945-2958 (2019)
- [2] Jiangang Shu, Ximeng Liu, Kan Yang, Yinghui Zhang, Xiaohua Jia, Robert H. Deng, “SybSub: Privacy-Preserving Expressive Task Subscription with Sybil Detection in Crowdsourcing,” *IEEE Internet of Things Journal* 6(2): 3003-3013 (2019)
- [3] Yuchuan Luo, Xiaohua Jia, Shaojing Fu, Ming Xu, “pRide: Privacy-Preserving Ride Matching Over Road Networks for Online Ride-Hailing Service,” *IEEE Trans. Information Forensics and Security* 14(7): 1791-1802 (2019)
- [4] Liang Song, Chunyan Liu, Hejiao Huang, Hongwei Du, Xiaohua Jia, “Minimum Connected Dominating Set Under Routing Cost Constraint in Wireless Sensor Networks with Different Transmission Ranges,” *IEEE/ACM Trans. Netw.* 27(2): 546-559 (2019)
- [5] Yu Guo, Xingliang Yuan, Xinyu Wang, Cong Wang, Baochun Li, Xiaohua Jia, “Enabling Encrypted Rich Queries in Distributed Key-Value Stores,” *IEEE Trans. Parallel Distrib. Syst.* 30(6): 1283-1297 (2019)
- [6] Ruitao Xie, Xiaohua Jia, Lu Wang, Kaishun Wu, “Energy Efficiency Enhancement for CNN-based Deep Mobile Sensing,” *IEEE Wireless Commun.* 26(3): 161-167 (2019)
- [7] Jiangang Shu, Ximeng Liu, Xiaohua Jia, Kan Yang, Robert H. Deng, “Anonymous Privacy-Preserving Task Matching in Crowdsourcing,” *IEEE Internet of Things Journal* 5(4): 3068-3078 (2018)
- [8] Tracy Yingying Cheng, Xiaohua Jia, “Compressive Traffic Monitoring in Hybrid SDN,” *IEEE Journal on Selected Areas in Communications* 36(12): 2731-2743 (2018)
- [9] Ruitao Xie, Xiaohua Jia, “Data Transfer Scheduling for Maximizing Throughput of Big-Data Computing in Cloud Systems,” *IEEE Trans. Cloud Computing* 6(1): 87-98 (2018)
- [10] Wenzheng Xu, Weifa Liang, Xiaohua Jia, Zichuan Xu, Zheng Li, Yiguang Liu, “Maximizing Sensor Lifetime with the Minimal Service Cost of a Mobile Charger in Wireless Sensor Networks,” *IEEE Trans. Mob. Comput.* 17(11): 2564-2577 (2018)
- [11] Jiayue Li, Tracy Yingying Cheng, Xiaohua Jia, Lionel M. Ni, “Throughput Optimization in WLAN/Cellular Integrated Network Using Partially Overlapped Channels,” *IEEE Trans. Wireless Communications* 17(1): 157-169 (2018)
- [12] Qian Wang, Qihang Sun, Kui Ren, Xiaohua Jia, “THEMIS: Collusion-Resistant and Fair Pricing Spectrum Auction Under Dynamic Supply,” *IEEE Trans. Mob. Comput.* 16(7): 2051-2064 (2017)
- [13] Xiaohua Jia, Tao Lv, Feng He, Hejiao Huang, “Collaborative Data Downloading by Using Inter-Satellite Links in LEO Satellite Networks,” *IEEE Trans. Wireless Communications* 16(3): 1523-1532 (2017)
- [14] Kan Yang, Kuan Zhang, Xiaohua Jia, M. Anwar Hasan, Xuemin (Sherman) Shen, “Privacy-preserving attribute-keyword based data publish-subscribe service on cloud platforms”, *Inf. Sci.* 387: 116-131 (2017)

- [15]Nuo Yu, Yuting Miao, Lan Mu, Hongwei Du, Hejiao Huang, Xiaohua Jia, "Minimizing Energy Cost by Dynamic Switching ON/OFF Base Stations in Cellular Networks," *IEEE Trans. Wireless Communications* 15(11): 7457-7469 (2016).
- [16]Kuai Xu, Feng Wang, Xiaohua Jia, "Secure the Internet, one home at a time", *Security and Communication Networks* 9(16): 3821-3832 (2016).
- [17]Bo Zhang, Xiaohua Jia, Kan Yang, Ruitao Xie, "Design of Analytical Model and Algorithm for Optimal Roadside AP Placement in VANETs," *IEEE Trans. Vehicular Technology* 65(9): 7708-7718 (2016).
- [18]Kan Yang, Zhen Liu, Xiaohua Jia, Xuemin Sherman Shen, "Time-Domain Attribute-Based Access Control for Cloud-Based Video Content Sharing: A Cryptographic Approach", *IEEE Trans. Multimedia* 18(5): 940-950 (2016).
- [19]Weifa Liang, Wenzheng Xu, Xiaojiang Ren, Xiaohua Jia, Xiaola Lin, "Maintaining Large-Scale Rechargeable Sensor Networks Perpetually via Multiple Mobile Charging Vehicles," *TOSN* 12(2): 14:1-14:26 (2016).
- [20]R. Xie and X. Jia, "Data Transfer Scheduling for Maximizing Throughput of Big-Data Computing in Cloud Systems," accepted by *IEEE Trans. Cloud Comput.*, Aug. 2015.
- [21]Kan Yang, Xiaohua Jia, Ren Kui, "Secure and Verifiable Policy Update Outsourcing for Big Data Access Control in the Cloud," *IEEE Trans. on Parallel and Distributed Systems*, Vol. 26, No. 12, pp. 3461 – 3470, 2015.
- [22]Baolei Cheng, Jianxi Fan, Xiaohua Jia, "Dimensional-Permutation-Based Independent Spanning Trees in Bijective Connection Networks", *IEEE Trans. on Parallel and Distributed Systems*, Vol. 26, No. 1, 2015, pp. 45-53.
- [23]R. Xie, Y. Wen, X. Jia and H. Xie, "Supporting Seamless Virtual Machine Migration via Named Data Networking in Cloud Data Center," *IEEE Trans. on Parallel and Distributed Systems*, Dec. 2014.
- [24]Ruitao Xie, Xiaohua Jia, "Transmission Efficient Clustering Method for Wireless Sensor Networks using Compressive Sensing", *IEEE Trans on Parallel and Distributed Systems*, Vol. 25, No. 3, Mar 2014, pp. 806-815.
- [25]Kan Yang and Xiaohua Jia, "Expressive, Efficient and Revocable Data Access Control for Multi-Authority Cloud Storage", *IEEE Trans. on Parallel and Distributed Systems*, 25(7): 1735-1744, Jul 2014.
- [26]Yanan Chang, Qin Liu, and Xiaohua Jia, "A Data Rate and Concurrency Balanced Approach for Broadcast in Wireless Mesh Networks", *IEEE Transactions on Wireless Communications*, Vol.13, No.7, pp. 3556-3566, July 2014.
- [27]Ruitao Xie, Xiaohua Jia, "Transmission Efficient Clustering Method for Wireless Sensor Networks using Compressive Sensing", *IEEE Trans on Parallel and Distributed Systems*, Vol. 25, No. 3, Mar 2014, pp. 806-815.
- [28]Kan Yang, Xiaohua Jia, Kui Ren, Bo Zhang, Ruitao Xie: DAC-MACS: Effective Data Access Control for Multiauthority Cloud Storage Systems. *IEEE Transactions on Information Forensics and Security* 8(11): 1790-1801 (2013).
- [29]Weifa Liang, Xiaojiang Ren, Xiaohua Jia, Xu Xu, "Monitoring Quality Maximization Through Fair Rate Allocation in Harvesting Sensor Networks", *IEEE Trans on Parallel and Distributed Systems*, Vol. 24, No. 9, Sept 2013, pp. 1827-1840.

- [30] Kan Yang, Xiaohua Jia, "An Efficient and Secure Dynamic Auditing Protocol for Data Storage in Cloud Computing," *IEEE Trans. on Parallel and Distributed Systems*, Vol. 24, No. 9, Sept 2013, pp. 1717-1726.
- [31] Baolei Cheng, Jianxi Fan, Xiaohua Jia, Shukai Zhang, "Independent spanning trees in crossed cubes", *Information Sciences*, Vol. 233, 2013, pp. 276-289.
- [32] Zhang Bo, Xiaohua Jia, "Multi-hop Collaborative Relay Networks with Consideration of Contention Overhead of Relay Nodes in IEEE 802.11 DCF", *IEEE Trans. on Communications*, 61(2), 2013, pp. 532-540.
- [33] Gary Wong, Xiaohua Jia, "An Efficient Scheduling Scheme for Hybrid TDMA and SDMA systems with Smart Antennas in WLANs", *Wireless Networks*, 19(2), 2013, pp. 259-271.
- [34] Jun Zhang, Xiaohua Jia, Yuan Zhou, "Analysis of Capacity Improvement by Directional Antennas in Wireless Sensor Networks", *ACM Trans. on Sensor Networks*, Vol. 9, Iss. 1, Nov 2012.
- [35] Shouling Ji, Zhipeng Cai, Yingshu Li, and Xiaohua Jia, "Continuous Data Collection Capacity of Dual-Radio Multi-Channel Wireless Sensor Networks", *IEEE Trans on Parallel and Distributed Systems*, Vol. 23, No. 10, Oct 2012, pp. 1844-1855.
- [36] Rui Tan, Guoliang Xing, Benyuan Liu, Jianping Wang and Xiaohua Jia, "Exploiting Data Fusion to Improve the Coverage of Wireless Sensor Networks", *IEEE/ACM Trans. on Networking*, Vol. 20, No. 2, Apr 2012, pp 450-462.
- [37] Kan Yang, Xiaohua Jia, "Data storage auditing service in cloud computing: challenges, methods and opportunities", *World Wide Web*, Vol. 15, No. 4, Apr 2012, pp. 409-428.
- [38] Yan Wang, Jianxi Fan, Guodong Zhou, Xiaohua Jia, "Independent spanning trees on twisted cubes", *Journal of Parallel and Distributed Computing*, Vol. 72, Iss. 1, Jan 2012, pp. 58-69.
- [39] Liming Xie, Xiaohua Jia, Kunxiao Zhou, "QoS multicast routing in cognitive radio ad hoc networks", *Journal of Communication Systems*, 25(1), 2012, pp. 30-46.
- [40] Liu Hai, Xiaowen Chu, Yiu-Wing Leung, Xiaohua Jia, Peng-Jun Wan, "General Maximal Lifetime Sensor-Target Surveillance Problem and Its Solution", *IEEE Trans on Parallel and Distributed Systems*, Vol. 22, No. 10, Oct 2011, pp.1757-1765.
- [41] Maggie X. Cheng, Xuan Gong, Lin Cai, Xiaohua Jia, "Cross-Layer Throughput Optimization with Power Control in Sensor Networks", *IEEE Trans on Vehicular Technology*, Vol. 60, No. 7, Sept 2011, pp. 3300-3308.
- [42] Jun Zhang, Xiaohua Jia, Zhongming Zheng, and Yuan Zhou, "Minimizing Cost of Placement of Multi-radio and Multi-power-level Access Points with Rate Adaptation in Indoor Environment", *IEEE Trans on Wireless Communications*, Vol. 10, No. 7, Jul 2011, pp. 2186-2195.
- [43] Xi Wang, Jianxi Fan, Xiaohua Jia, Shukai Zhang, Jia Yu, "Embedding of meshes into twisted-cubes", *Information Sciences*, Vol. 181, Iss. 14, Jul 2011, pp. 3085-3099.
- [44] Jianxi Fan, Xiaohua Jia, Baolei Cheng, Jia Yu, "An Efficient Fault-Tolerant Routing Algorithm in Bijective Connection Networks with Restricted Faulty Edges", *Theoretical Computer Science*, Vol. 412, Iss. 29, Jul 2011.
- [45] Jianxi Fan and Xiaohua Jia, Xin Liu, Shukai Zhang, Jia Yu, "Efficient Unicast in Bijective Connection Networks with the Restricted Faulty Node Set", *Information Science*, Vol. 181, Iss. 11, Jun 2011, pp. 2303-2315.
- [46] Wujun Zhou, Jianxi fan, Xiaohua Jia, Shukai Zhang, "The spined cube: a new hypercube variant with smaller diameter", *Information Processing Letter*, Vol. 111, Iss. 12, Jun 2011, pp. 561-567.
- [47] Haiyan Cai, Xiaohua Jia, Mo Sha, "Critical Sensor Density for Partial Connectivity in Large Area Wireless Sensor Networks", *ACM Trans. on Sensor Networks*, vol. 7, iss. 4, Feb. 2011.

- [48]Qin Liu, Xiaohua Jia, Yuan Zhou, Topology Control for Multi-Channel Multi-Radio Wireless Mesh Networks Using Directional Antennas, *Wireless Networks*, vol. 17, no. 1, Jan 2011, pp.41 - 51.
- [49]G. Xing, J. Wang, Z. Yuan, R. Tan, L. Sun, Q. Huang, X. Jia and H. C. So, “Mobile Scheduling for Spatiotemporal Detection in Wireless Sensor Networks”, *IEEE Trans. on Parallel and Distributed Systems*, Vol. 21, No. 12, Dec 2010, pp.1851-1866.
- [50][Scott C.-H. Huang](#), [Min-Te Sun](#), [Qilian Liang](#), [Peng-Jun Wan](#), Xiaohua Jia, “Interference-Aware, Fully-Distributed Virtual Backbone Construction and its Application in Multi-Hop Wireless Networks”, *IEEE Trans on Communications*, 58(12), Dec 2010, pp.3550-3560.
- [51]N. Xiong, Xiaohua Jia, L. T. Yang, A.V. Vasilakos, Y. Li and Y. Pan, “A Distributed Efficient Flow Control Scheme for Multirate Multicast Networks”, *IEEE Trans on Parallel and Distributed Systems*, Vol. 21, No. 9, Sep 2010, pp.1254-1266.
- [52]Jun Zhang, Xiaohua Jia, Guoliang Xing, “Real-Time Data Aggregation in Contention-based Wireless Sensor Networks”, *ACM Trans. on Sensor Networks*, vol 7, iss 1, Aug 2010, pp. 25 pages.
- [53]Guoliang Xing, Minming Li, Hongbo Lou, Xiaohua Jia, “Dynamic Multi-resolution Data Dissemination in Wireless Sensor Networks”, *IEEE Trans. on Mobile Computing*, Sep. 2009, pp.1205 - 1220.
- [54]Hejiao Huang, Xiaolu Cao, Xiaohua Jia, Xiaolong Wang: Channel assignment using block design in wireless mesh networks. *Computer Communications* 32(7-10): 1148-1153 (2009).
- [55]P.-J. Wan, C.-W. Yi, Lixin Wang, Frances Yao and Xiaohua Jia, “Asymptotic Critical Transmission Radii for Greedy Forward Routing in Wireless Ad Hoc Networks”, *IEEE Trans. on Communications*, 57(5), 2009, pp.1433-1443.
- [56][Naixue Xiong](#), [Yi Pan](#), Xiaohua Jia, [Jong Hyuk Park](#), [Yingshu Li](#): Design and analysis of a self-tuning feedback controller for the Internet. *Computer Networks* 53(11): 1784-1797 (2009).
- [57]M. Marzban, Qianping Gu, Xiaohua Jia, “Computational Study on Planar Dominating Set Problem”, *Theoretical Computer Science*, Feb, 2009.
- [58]Qin Liu, Xiaohua Jia, Chanle Wu, “Optimal precomputation for mapping service level agreements in grid computing”, *Future Generation Computer Systems*, 24, 2008, pp. 849 – 959.
- [59]Jianxi Fan and Xiaohua Jia, “Edge-Pancyclicity and Path-Embeddability of Bijective Connection Graphs”, *Information Science*, Vol. 178, No. 2, 2008, 340-351.
- [60]Jianxi Fan, Xiaohua Jia, and Xiaola Lin, “Embedding of Cycles in Twisted Cubes with Edge-Pancyclic”, *Algorithmica*, Vol. 51, No. 3, 2008, pp.264-282.
- [61]X.-J. Chen, X.-D. Hu, Xiaohua. Jia, “Inapproximability and Approximability of Minimal Tree Routing and Coloring”, *Journal of Discrete Algorithms*, 6 (2008), pp. 341-351.
- [62]Ivan Stojmenovic, Dandan Liu, Xiaohua Jia, “A scalable quorum-based location service in ad hoc and sensor networks”, *Int’l Journal of Communication Networks and Distributed Systems*, Vol. 1, No. 1, 2008, pp. 71-94.
- [63]Jianxi Fan and Xiaohua Jia, “Embedding Meshes into Crossed Cubes”, *Information Science*, Vol. 177, 2007, pp. 3151-3160.
- [64]Dandan Liu, Xiaohua Jia, and Ivan Stojmenovic, “Quorum and connected dominating sets based location service in wireless ad hoc, sensor and actuator networks”, *Computer Communication*, Vol. 30, 2007, pp.3627-3643.
- [65]Deying Li, Qin Liu, X. Hu and Xiaohua Jia, “Energy Efficient Multicast Routing in Ad Hoc Wireless Networks”, *Computer Communication*, Vol. 30, Iss. 18, Dec 2007, pp.3746-3756.
- [66]Feng Wang, Hongwei Du, Xiaohua Jia, Ping Deng, Weili Wu, David MacCallum, “Non-Unique Probe Selection and Group Testing”, *Theoretical Computer Science*, Vol. 381, Iss. 1-3, Aug 2007, pp. 29-32.

- [67]Huayi Wu and Xiaohua Jia, "QoS Multicast Routing by Using Multiple Paths/Trees in Wireless Ad Hoc Networks", *Ad Hoc Networks*, Vol. 5, Iss. 5, Jul 2007, pp. 600-612.
- [68]Hai Liu, Xiaohua Jia, Pengjun Wan, Xinxin Liu, and Frances Yao, "A Distributed and Efficient Flooding Scheme Using 1-hop Information in Mobile Ad Hoc Networks," *IEEE Trans on Parallel and Distributed Systems*, Vol. 18, No. 5, May 2007, pp. 658-671.
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