

Name: **Chunxiao Jiang**

ComSoc membership #: **90608812, Senior Member**

Position Statement

I am Chunxiao Jiang, an associate professor in Tsinghua Space Center, Tsinghua University. I hereby apply for undertaking the duties of the Secretary of IEEE ComSoc Satellite and Space Communications Technical Committee. I understand the requirements and significance of the Secretary, and ask for a chance to contribute to the Committee. My competence and dedication to the Committee is constituted by a threefold prospect: satisfying the requirements of SSC Secretary, contributing to academic and professional influence of SSC, and assisting in the expansion of new sphere especially in China. To serve the goal, I am committed to:

Assume the responsibilities and duties of SSC Secretary

I have been familiar with the responsibilities and duties of SSC Secretary through my attendances at the Committee annual conferences and other academic events. I have also studied through the detailed requirements for SSC Secretary, including preparing for the meetings, organizing and coordinating, keeping records, filing documents, maintaining updated lists and other related tasks. The extensive academic experiences I have accumulated within IEEE system would support my qualifications and capability to fulfill all the requirements.

Contribute to the advancement of SSC academic influence

My research has focused on satellite communications for more than a decade and accumulated multiple publications, patents and project experience in the field. My Google citations have reach 11 thousand, and I have also received the SSC Technical Recognition Awards in 2022. The academic foundations equipped me with the vision to promote the theory and applications of systems and to foster original work in satellite and space communications. Meanwhile, extensive experiences of academic and professional projects I've participated or led has enhanced my capability to organize events such as conferences, educational programs, local activities, and technical committees. I would offer my expertise to facilitate the work of Chair and Vice Chair

of SSC to better serve the academic advancement and influence of our committee.

Develop new realm and more opportunities for SSC in China

Today, space and satellite communications are becoming strategic missions for more and more countries, China as one of them. The SIGN (Space Integrated Ground Networks) project has been recently initiated by Chinese government as a national priority program and *I am one of the secretary members.* Multiple parallel projects are propelled simultaneously, such as Space Information Network major research program by National Science Foundation of China, in which *I am also undertaking the role of secretary.* Moreover, in the Chinese Institute of Electronics (CIE, i.e., “China IEEE”), *I am also serving as the secretary of the Satellite Communication Committee.* All these channels have connected the networks of top scholars of space and satellite communications in China and I am on a specific node to enjoy the exceptional advantages of getting access to all of them. I would parlay such advantages into the expansion of SSC networks in China and create more memberships and potential resources for our committee.

If I might be endowed with the privilege to contribute to our committee as the Secretary, I would treasure the opportunity to work with the most esteemed scholars in the field, to strive for the committee’s growth with the highest technical and academic quality, and to be part of advancing technological innovation and excellence.

Thank you so much for your time.

Chunxiao Jiang

May 10, 2022



Chunxiao Jiang

Associate Professor

IEEE Senior Member, IET Fellow

Affiliation: School of Information Science and Technology

Tsinghua University

Office: Main Building 12-208, Tsinghua University, Beijing

Phone: 86-10-62773410

Email: jchx@tsinghua.edu.cn

Research Interests: satellite communications and networks

Google scholar: 11000+ <https://scholar.google.com/citations?user=-x35VMAAAAAJ>

Education

- Ph.D.(Honors), Tsinghua University, Beijing, China
Electronic Engineering (Sep. 2008 - Dec. 2012)
- B.E.(Honors), Beijing University of Aeronautics and Astronautics, China
Information Engineering (Sep. 2004 - Jul. 2008), Rank: Top 1

Research Experience

- University of Maryland, College Park, USA
Research Associate, ECE Department (Oct. 2015 - Mar. 2016)
- University of Southampton, Southampton, UK
Visiting Scholar, Electronics and Computer Science (Jun. 2015 - Sep. 2015)
- Tsinghua University, Beijing, China
Postdoc, Electronic Engineering (Sep. 2014 - May. 2015)
- Harvard University, Boston, USA
Visiting Scholar, Electrical Engineering (Jul. 2014 - Aug. 2014)
- Massachusetts Institute of Technology MIT, Boston, USA
Visiting Scholar, LIDS (Jun. 2014 - Jul. 2014)
- University of Maryland, College Park, USA
Research Associate, ECE Department (Sep. 2011 - May. 2014)

Honors and Awards

- IEEE ComSoc SSC Technical Recognition Award, 2022
- IEEE ComSoc Best Young Professionals Award, 2021
- IEEE VTS Distinguished Lecturer, 2021
- IEEE WCSP Best Paper Award, 2021
- IEEE VTS Early Career Award, 2020
- IEEE ComSoc Asia Pacific Best Young Researcher Award, 2020
- IEEE WiMob Best Paper Award, 2020
- NSFC Excellent Young Scientists Fund, 2019
- IEEE ICC Best Paper Award, 2019
- China National Second Prize in Technical Inventions Award 2018
- IEEE ComSoc TC Best Journal Paper Award of the IEEE ComSoc TC on Green Communications & Computing 2018
- IEEE ComSoc TC Best Journal Paper Award of the IEEE ComSoc TC on Communications Systems Integration and Modeling 2018
- IEEE IWCMC Best Paper Award, 2017
- IEEE Communications Society Young Author Best Paper Award, 2017
- China Young Elite Scientist Sponsorship Program by CAST, 2016
- IEEE Transactions on Communications Exemplary Reviewer, 2016
- IEEE GlobalSIP Best Student Paper Award, 2015
- IEEE GLOBECOM Best Paper Award, 2013

Journal Publications

1. A. Xiao, X. Wang, S. Wu, **Chunxiao Jiang** and L. Ma, "Mobility-Aware Resource Management for Integrated Satellite-Maritime Mobile Networks", to appear in *IEEE Network*.
2. H. Jia, Z. Ni, **Chunxiao Jiang**, L. Kuang and J. Lu, "Uplink Interference and Performance Analysis for Mega Satellite Constellation", to appear in *IEEE Internet of Things Journal*.
3. P. Zhang, Y. Wang, N. Kumar, **Chunxiao Jiang** and G. Shi, "A Security and Privacy-Preserving Approach Based on Data Disturbance for Collaborative

Edge Computing in Social IoT Systems", to appear in *IEEE Transactions on Computational Social Systems*.

4. Z. Chen, L. Zhang, Y. Pei, **Chunxiao Jiang** and L. Yin, "NOMA-based Multi-User Mobile Edge Computation Offloading via Cooperative Multi-Agent Deep Reinforcement Learning", to appear in *IEEE Transactions on Cognitive Communications and Networking*.
5. Y. He, Y. Liu, **Chunxiao Jiang** and X. Zhong, "Multi-Objective Anti-Collision for Massive Access Ranging in MF-TDMA Satellite Communication System", to appear in *IEEE Internet of Things Journal*.
6. P. Zhang, C. Wang, **Chunxiao Jiang**, N. Kumar and Q. Lu, "Resource Management and Security Scheme of ICPSs and IoT Based on VNE Algorithm", to appear in *IEEE Internet of Things Journal*.
7. W. Lv, S. Wu, **Chunxiao Jiang**, Y. Cui, X. Qiu and Y. Zhang, "Towards Large-Scale and Privacy-Preserving Contact Tracing in COVID-19 pandemic: A Blockchain Perspective", to appear in *IEEE Transactions on Network Science and Engineering*.
8. S. Wang, K. Liu, **Chunxiao Jiang**, J. Yan and L. Kuang, "EFS: Efficient Storage Optimization for Multistage Flow-table in Software-Defined Satellite Network", to appear in *IEEE Access*.
9. C. Wang, L. Liu, **Chunxiao Jiang**, S. Wang, P. Zhang and S. Shen, "Incorporating Distributed DRL into Storage Resource Optimization of Space-Air-Ground Integrated Wireless Communication Network", to appear in *IEEE Journal of Selected Topics in Signal Processing*.
10. X. Zhu and **Chunxiao Jiang**, "Creating Efficient Integrated Satellite-Terrestrial Networks in the 6G Era", to appear in *IEEE Wireless Communications*.
11. J. Wang, **Chunxiao Jiang** and L. Kuang, "Iterative NOMA Detection for Multiple Access in Satellite High-Mobility Communications", to appear in *IEEE Journal on Selected Areas in Communications*.
12. Z. Xia, J. Du, J. Wang, **Chunxiao Jiang** and Y. Ren, "Multi-Agent Reinforcement Learning Aided Intelligent UAV Swarm for Target Tracking", to appear in *IEEE Transactions on Vehicular Technology*.
13. X. Zhu, **Chunxiao Jiang**, L. Kuang, and Z. Zhao, "Cooperative Multilayer Edge Caching in Integrated Satellite-Terrestrial Networks", to appear in *IEEE Transactions on Wireless Communications*.
14. P. Zhang, Y. Hong, N. Kumar, M. Alazab, M. D. Alshehri and **Chunxiao Jiang**, "BC-EdgeFL: Defensive Transmission Model Based on Blockchain Assisted Reinforced Federated Learning in IIoT Environment", to appear in *IEEE Transactions on Industrial Informatics*.
15. C. Qiu, H. Yao, **Chunxiao Jiang**, S. Guo, and F. Xu, "Cloud Computing Assisted Blockchain-Enabled Internet of Things", to appear in *IEEE Transactions on Cloud Computing*.

16. H. Yao, C. Liu, P. Zhang, S. Wu, **Chunxiao Jiang**, and S. Yu, "Identification of Encrypted Traffic Through Attention Mechanism Based Long Short TermMemory", to appear in *IEEE Transactions on Big Data*.
17. X. Zhu and **Chunxiao Jiang**, "[Integrated Satellite-Terrestrial Networks Toward 6G: Architectures, Applications, and Challenges](#)", *IEEE Internet of Things Journal*, vol. 9, no. 1, pp. 437-461, Jan. 2022.
18. B. Deng, **Chunxiao Jiang**, J. Wang and L. Kuang, "[Beam Scheduling with Various Mission Demands in Data Relay Satellite Systems](#)", *Journal of Communications and Information Networks*, vol. 6, no. 4, pp. 396-410, Dec. 2021.
19. J. Wang, **Chunxiao Jiang** and L. Kuang, "[Turbo Iterative DSSS Acquisition in Satellite High-Mobility Communications](#)", *IEEE Transactions on Vehicular Technology*, vol. 70, no. 12, pp. 12998-13009, Dec. 2021.
20. Z. Li, **Chunxiao Jiang** and L. Kuang, "[Double Auction Mechanism for Resource Allocation in Satellite MEC](#)", *IEEE Transactions on Cognitive Communications and Networking*, vol. 7, no. 4, pp. 1112-1125, Dec. 2021.
21. P. Zhang, C. Wang, **Chunxiao Jiang** and Z. Han, "[Deep Reinforcement Learning Assisted Federated Learning Algorithm for Data Management of IIoT](#)", *IEEE Transactions on Industrial Informatics*, vol. 17, no. 12, pp. 8475-8484, Dec. 2021.
22. Z. Lin, Z. Ni, L. Kuang, **Chunxiao Jiang**, B. Liu and Z. Huang, "[A Rapid PN Code Acquisition Method for Low Spreading Factor Satellite Communication Systems](#)", *IEEE Communications Letters*, vol. 25, no. 11, pp. 3664-3668, Nov. 2021.
23. Y. Li, H. Zhang, K. Long, **Chunxiao Jiang** and M. Guizani, "[Joint Resource Allocation and Trajectory Optimization With QoS in UAV-Based NOMA Wireless Networks](#)", *IEEE Transactions on Wireless Communications*, vol. 20, no. 10, pp. 6343-6355, Oct. 2021.
24. L. Xu, **Chunxiao Jiang**, Y. Qian, J. Li, Y. Zhao and Y. Ren, "[Privacy-Accuracy Trade-off in Differentially-Private Distributed Classification: A Game Theoretical Approach](#)", *IEEE Transactions on Big Data*, vol. 7, no. 4, pp. 770-783, Oct. 2021.
25. Z. Fang, J. Wang, **Chunxiao Jiang**, Q. Zhang and Y. Ren, "[AoI-Inspired Collaborative Information Collection for AUV-Assisted Internet of Underwater Things](#)", *IEEE Internet of Things Journal*, vol. 8, no. 19, pp. 14559-14571, Oct. 2021.
26. R. Han, L. Bai, **Chunxiao Jiang**, J. Liu and J. Choi, "[A Secure Architecture of Relay-Aided Space Information Networks](#)", *IEEE Network*, vol. 35, no. 4, pp. 88-94, Aug. 2021.
27. P. Zhang, H. Sun, J. Situ, **Chunxiao Jiang** and D. Xie, "[Federated Transfer Learning for IIoT Devices With Low Computing Power Based on Blockchain and Edge Computing](#)", *IEEE Access*, vol. 9, pp. 98630-98638, Jul. 2021.
28. P. Zhang, C. Wang, **Chunxiao Jiang** and A. Benslimane, "[Security-Aware Virtual Network Embedding Algorithm Based on Reinforcement](#)

- [Learning](#)", *IEEE Transactions on Network Science and Engineering*, vol. 8, no. 2, pp. 1095-1105, Jun. 2021.
29. P. Zhang, C. Wang, N. Kumar, **Chunxiao Jiang** et al., "[Artificial Intelligence Technologies for COVID-19-Like Epidemics: Methods and Challenges](#)", *IEEE Network*, vol. 35, no. 3, pp. 27-33, Jun. 2021.
 30. C. Wang, J. Lu, X. Ding, **Chunxiao Jiang**, J. Yang and J. Shen, "[Design, Modeling, Control, and Experiments for a Fish-Robot-Based IoT Platform to Enable Smart Ocean](#)", *IEEE Internet of Things Journal*, vol. 8, no. 11, pp. 9317-9329, Jun. 2021.
 31. H. Yao, B. Zhang, P. Zhang, S. Wu, **Chunxiao Jiang**, and S. Guo, "[RDAM: A Reinforcement Learning Based Dynamic Attribute Matrix Representation for Virtual Network Embedding](#)", *IEEE Transactions on Emerging Topics in Computing*, vol. 9, no. 2, pp. 901-914, Apr. 2021. (**ESI Highly Cited Paper**)
 32. S. Guan, J. Wang, **Chunxiao Jiang**, R. Duan, Y. Ren and T. Q. S. Quek, "[MagicNet: The Maritime Giant Cellular Network](#)", *IEEE Communications Magazine*, vol. 59, no. 3, pp. 117-123, Mar. 2021.
 33. C. Ouyang, S. Wu, **Chunxiao Jiang**, J. Cheng and H. Yang, "[Physical Layer Security Over Mixture Gamma Distributed Fading Channels With Discrete Inputs: A Unified and General Analytical Framework](#)", *IEEE Communications Letters*, vol. 25, no. 2, pp. 412-416, Feb. 2021.
 34. P. Zhang, **Chunxiao Jiang**, X. Pang and Y. Qian, "[STEC-IoT: A Security Tactic by Virtualizing Edge Computing on IoT](#)", *IEEE Internet of Things Journal*, vol. 8, no. 4, pp. 2459-2467, Feb. 2021.
 35. R. Zhang, X. Jing, S. Wu, **Chunxiao Jiang**, J. Mu and F. R. Yu, "[Device-Free Wireless Sensing for Human Detection: The Deep Learning Perspective](#)", *IEEE Internet of Things Journal*, vol. 8, no. 4, pp. 2517-2539, Feb. 2021.
 36. N. Raveendran, Y. Gu, **Chunxiao Jiang**, N. Tran, M. Pan, L. Song and Z. Han, "[Cyclic Three-Sided Matching Game Inspired Wireless Network Virtualization](#)", *IEEE Transactions on Mobile Computing*, vol. 20, no. 2, pp. 416-428, Feb. 2021.
 37. P. Zhang, X. Huang, Y. Wang, **Chunxiao Jiang**, S. He and H. Wang, "[Semantic Similarity Computing Model Based on Multi Model Fine-Grained Nonlinear Fusion](#)", *IEEE Access*, vol. 9, pp. 8433-8443, Jan. 2021.
 38. J. Du, **Chunxiao Jiang**, J. Wang, Y. Ren and M. Debbah, "[Machine Learning for 6G Wireless Networks: Carrying Forward Enhanced Bandwidth, Massive Access, and Ultrareliable/Low-Latency Service](#)", *IEEE Vehicular Technology Magazine*, vol. 15, no. 4, pp. 122-134, Dec. 2020.
 39. P. Zhang, Y. Hong, X. Pang, and **Chunxiao Jiang**, "[VNE-HPSO: Virtual Network Embedding Algorithm Based on Hybrid Particle Swarm Optimization](#)", *IEEE Access*, vol. 8, pp. 213389-213400, Dec. 2020.
 40. Y. Zhan, P. Wan, **Chunxiao Jiang**, X. Pan, X. Chen and S. Guo, "[Challenges and Solutions for the Satellite Tracking, Telemetry, and Command System](#)", *IEEE Wireless Communications*, vol. 27, no. 6, pp. 12-18, Dec. 2020.

41. **Chunxiao Jiang**, N. Ge and L. Kuang, "[AI-Enabled Next-Generation Communication Networks: Intelligent Agent and AI Router](#)", *IEEE Wireless Communications*, vol. 27, no. 6, pp. 129-133, Dec. 2020.
42. X. Du, H. V. Nguyens, **Chunxiao Jiang**, Y. Li, F. R. Yu, and Z. Han, "[Virtual Relay Selection in LTE-V: A Deep Reinforcement Learning Approach to Heterogeneous Data](#)", *IEEE Access*, vol. 8, no. 1, pp. 102477-102492, Dec. 2020.
43. J. Wang, **Chunxiao Jiang**, L. Kuang, and B. Yang, "[Iterative Doppler Frequency Offset Estimation in Satellite High-Mobility Communications](#)", *IEEE Journal on Selected Areas in Communications*, vol. 38, no. 12, pp. 2875-2888, Dec. 2020.
44. Z. Ji, S. Wu, **Chunxiao Jiang**, and W. Wang, "[Popularity-Driven Content Placement and Multi-hop Delivery for Terrestrial-Satellite Networks](#)", *IEEE Communications Letters*, vol. 24, no. 11, pp. 2574-2578, Nov. 2020.
45. Z. Ji, S. Wu, **Chunxiao Jiang**, D. Hu, and W. Wang, "[Energy-Efficient Data Offloading for Multi-Cell Satellite-Terrestrial Networks](#)", *IEEE Communications Letters*, vol. 24, no. 10, pp. 2265-2269, Oct. 2020.
46. **Chunxiao Jiang**, and Z. Li, "[Decreasing Big Data Application Latency in Satellite Link by Caching and Peer Selection](#)", *IEEE Transactions on Network Science and Engineering*, vol. 7, no. 4, pp. 2555-2565, Oct. 2020.
47. C. Ouyang, S. Wu, **Chunxiao Jiang**, D. W. K. Ng, and H. Yang, "[Secrecy Performance for Finite-Alphabet Inputs Over Fluctuating Two-Ray Channels in FDA Communications](#)", *IEEE Communications Letters*, vol. 9, no. 10, pp. 1638-1642, Oct. 2020.
48. C. Ouyang, S. Wu, **Chunxiao Jiang**, D. W. K. Ng, and H. Yang, "[Secrecy Performance for Finite-Alphabet Inputs Over Fluctuating Two-Ray Channels in FDA Communications](#)", *IEEE Wireless Communications Letters*, vol. 9, no. 10, pp. 1638-1642, Oct. 2020.
49. R. Duan, J. Du, **Chunxiao Jiang**, and Y. Ren, "[Value-Based Hierarchical Information Collection for AUV-Enabled Internet of Underwater Things](#)", *IEEE Internet of Things Journal*, vol. 7, no. 10, pp. 9870-9883, Oct. 2020.
50. J. Wang, **Chunxiao Jiang**, H. Zhang, Y. Ren, K. -C. Chen, and L. Hanzo, "[Thirty Years of Machine Learning: The Road to Pareto-Optimal Wireless Networks](#)", *IEEE Communications Surveys & Tutorials*, vol. 22, no. 3, pp. 1472-1514, thirdquarter. 2020.
51. C. Ouyang, S. Wu, **Chunxiao Jiang**, J. Cheng, A. Xiao, and H. Yang, "[Security Enhancement via Antenna Selection in MIMOME Channels With Discrete Inputs](#)", *IEEE Transactions on Communications*, vol. 68, no. 8, pp. 5041-5055, Aug. 2020.
52. F. Li, H. Yao, J. Du, **Chunxiao Jiang**, and Y. Qian, "[Stackelberg Game Based Computation Offloading in Social and Cognitive IIoT](#)", *IEEE Transactions on Industrial Informatics*, vol. 16, no. 8, pp. 5444-5455, Aug. 2020.
53. F. Li, H. Yao, J. Du, **Chunxiao Jiang**, and Y. Qian, "[Stackelberg Game-Based Computation Offloading in Social and Cognitive Industrial Internet of](#)

- [Things](#)", *IEEE Transactions on Industrial Informatics*, vol. 16, no. 8, pp. 5444-5455, Aug. 2020.
54. L. Yang, H. Yao, J. Wang, **Chunxiao Jiang**, A. Benslimane, and Y. Liu, "[Multi-UAV-Enabled Load-Balance Mobile-Edge Computing for IoT Networks](#)", *IEEE Internet of Things Journal*, vol. 7, no. 8, pp. 6898-6908, Aug. 2020.
 55. Q. Li, H. Yao, T. Mai, **Chunxiao Jiang**, and Y. Zhang, "[Reinforcement-Learning- and Belief-Learning-Based Double Auction Mechanism for Edge Computing Resource Allocation](#)", *IEEE Internet of Things Journal*, vol. 7, no. 7, pp. 5976-5985, Jul. 2020.
 56. **Chunxiao Jiang**, and X. Zhu, "[Reinforcement Learning Based Capacity Management in Multi-layer Satellite Networks](#)", *IEEE Transactions on Wireless Communications*, vol. 19, no. 7, pp. 4685-4699, Jul. 2020.
 57. H. Yao, H. Liu, P. Zhang, S. Wu, **Chunxiao Jiang**, and S. Guo, "[A Learning-Based Approach to Intra-Domain QoS Routing](#)", *IEEE Transactions on Vehicular Technology*, vol. 69, no. 6, pp. 6718-6730, Jun. 2020.
 58. X. Zhu, **Chunxiao Jiang**, L. Kuang, Z. Zhao, and S. Guo, "[Two-Layer Game Based Resource Allocation in Cloud Based Integrated Terrestrial-Satellite Networks](#)", *IEEE Transactions on Cognitive Communications and Networking*, vol. 6, no. 2, pp. 509-522, Jun. 2020.
 59. S. Guan, J. Wang, H. Yao, **Chunxiao Jiang**, Z. Han, and Y. Ren, "[Colonel Blotto Games in Network Systems Models Strategies and Applications](#)", *IEEE Transactions on Network Science and Engineering*, vol. 7, no. 2, pp. 637-649, Jun. 2020.
 60. A. Xiao, X. Huang, S. Wu, **Chunxiao Jiang**, L. Ma and Z. Han, "[User Preference Aware Resource Management for Wireless Communication Networks](#)", *IEEE Network*, vol. 34, no. 3, pp. 78-85, Jun. 2020.
 61. H. Yao, S. Ma, J. Wang, P. Zhang, **Chunxiao Jiang**, and S. Guo, "[A Continuous-Decision Virtual Network Embedding Scheme Relying on Reinforcement Learning](#)", *IEEE Transactions on Network and Service Management*, vol. 17, no. 2, pp. 864-875, Jun. 2020.
 62. J. Du, E. Gelenbe, **Chunxiao Jiang**, Z. Han, and Y. Ren, "[Auction-based Data Transaction in Mobile Networks: Data Allocation Design and Performance Analysis](#)", *IEEE Transactions on Mobile Computing*, vol. 19, no. 5, pp. 1040-1055, May. 2020.
 63. C. Ouyang, S. Wu, **Chunxiao Jiang**, D. W. K. Ng, and H. Yang, "[Receive Antenna Selection under Discrete Inputs: Approximation and Applications](#)", *IEEE Transactions on Communications*, vol. 68, no. 4, pp. 2634-2647, Apr. 2020.
 64. C. Ouyang, S. Wu, **Chunxiao Jiang**, J. Cheng, and H. Yang, "[Approximating Ergodic Mutual Information for Mixture Gamma Fading Channels With Discrete Inputs](#)", *IEEE Communications Letters*, vol. 24, no. 4, pp. 734-738, Apr. 2020.
 65. Q. Yang, T. Jiang, N. Beaulieu, J. Wang, **Chunxiao Jiang**, S. Mumtaz, and Z. Zhou, "[Heterogeneous Semi-Blind Interference Alignment in Finite-SNR](#)

- [Networks With Fairness Consideration](#)", *IEEE Transactions on Wireless Communications*, vol. 19, no. 4, pp. 2472-2488, Apr. 2020.
66. B. Deng, **Chunxiao Jiang**, H. Yao, S. Guo and S. Zhao, "[The Next Generation Heterogeneous Satellite Communication Networks: Integration of Resource Management and Deep Reinforcement Learning](#)", *IEEE Wireless Communications*, vol. 27, no. 2, pp. 105-111, Apr. 2020.
67. C. Ouyang, S. Wu, **Chunxiao Jiang**, J. Cheng, and H. Yang, "[Approximating Ergodic Mutual Information for Mixture Gamma Fading Channels With Discrete Inputs](#)", *IEEE Communications Letters*, vol. 24, no. 4, pp. 734-738, Apr. 2020.
68. Q. Yang, T. Jiang, N. Beaulieu, J. Wang, **Chunxiao Jiang**, S. Mumtaz, Z. Zhou, "[Heterogeneous Semi-Blind Interference Alignment in Finite-SNR Network With Fairness Consideration](#)", *IEEE Transactions on Wireless Communications*, vol. 19, no. 4, pp. 2472-2488, Apr. 2020.
69. J. Wang, **Chunxiao Jiang**, K. Zhang, X. Hou, Y. Ren, and Y. Qian, "[Distributed Q-Learning Aided Heterogeneous Network Association for Energy-Efficient IIoT](#)", *IEEE Transactions on Industrial Informatics*, vol. 16, no. 4, pp. 2756-2764, Apr. 2020.
70. X. Lin, L. Kuang, Z. Ni, **Chunxiao Jiang**, and S. Wu, "[Approximate Message Passing-Based Detection for Asynchronous NOMA](#)", *IEEE Communications Letters*, vol. 24, no. 3, pp. 534-538, Mar. 2020.
71. C. Qiu, H. Yao, R. Yu, **Chunxiao Jiang**, and S. Guo, "[A Service-Oriented Permissioned Blockchain for the Internet of Things](#)", *IEEE Transactions on Service Computing*, vol. 13, no. 2, pp. 203-215, Mar. 2020.
72. X. Lin, L. Kuang, Z. Ni, **Chunxiao Jiang**, and S. Wu, "[Approximate Message Passing-Based Interference Cancellation Technique for Asynchronous NOMA](#)", *IEEE Communications Letters*, vol. 24, no. 3, pp. 534-538, Mar. 2020.
73. Y. Zhang, L. Yin, **Chunxiao Jiang**, and Y. Qian, "[Joint Beamforming Design and Resource Allocation for Terrestrial-Satellite Cooperation System](#)", *IEEE Transactions on Communications*, vol. 68, no. 2, pp. 778-791, Feb. 2020.
74. H. Zhang, **Chunxiao Jiang**, J. Wang, L. Wang, Y. Ren and L. Hanzo, "[Multicast Beamforming Optimization in Cloud-based Heterogeneous Terrestrial and Satellite Networks](#)", *IEEE Transactions on Vehicular Technology*, vol. 69, no. 2, pp. 1766-1776, Feb. 2020.
75. L. Yin, C. Jiang, **Chunxiao Jiang**, and Y. Qian, "[Collaborative Spectrum Managements and Sharing in Coordinated Space, Terrestrial and Ocean Networks](#)", *IEEE Network*, vol. 34, no. 1, pp. 182-187, Jan. 2020.
76. D. Huang, X. Tao, **Chunxiao Jiang**, S. Cui, J. Lu, "[Trace-Driven QoE-aware Proactive Caching for Mobile Video Streaming in Metropolis](#)", *IEEE Transactions on Wireless Communications*, vol. 19, no. 1, pp. 62-76, Jan. 2020.

77. X. Li, H. Yao, J. Wang, S. Wu, **Chunxiao Jiang**, and Y. Qian, "[Rechargeable Multi-UAV Aided Seamless Coverage for QoS-Guaranteed IoT Networks](#)", *IEEE Internet of Things Journal*, vol. 6, no. 6, pp. 10902-10914, Dec. 2019.
78. B. Deng, **Chunxiao Jiang**, and S. Guo, "[Energy Minimization of Resource Allocation in Cloud-based Satellite Communication Networks](#)", *IEEE Communications Letters*, vol. 23, no. 12, pp. 2353-2356, Dec. 2019.
79. H. Yao, T. Mai, **Chunxiao Jiang**, L. Kuang and S. Guo, "[AI Routers & Network Mind: A Hybrid Machine Learning Paradigm for Packet Routing](#)", *IEEE Computational Intelligence Magazine*, vol. 14, no. 4, pp. 21-30, Nov. 2019.
80. H. Yao, P. Gao, J. Wang, P. Zhang, **Chunxiao Jiang**, and Z. Han "[Capsule Network Assisted IoT Traffic Classification Mechanism for Smart Cities](#)", *IEEE Internet of Things Journal*, vol. 6, no. 5, pp. 7515-7525, Oct. 2019.
81. J. Wang, S. Guan, **Chunxiao Jiang**, H. Zhang, Y. Ren and L. Hanzo, "[Network Association in Machine-Learning Aided Cognitive Radar and Communication Co-Design](#)", *IEEE Journal on Selected Areas in Communications*, vol. 37, no. 10, pp. 2322-2336, Oct. 2019.
82. H. Yao, P. Gao, P. Zhang, J. Wang, **Chunxiao Jiang**, and L. Lu, "[Hybrid Intrusion Detection System for Edge-Based IIoT Relying on Machine-Learning-Aided Detection](#)", *IEEE Network*, vol. 33, no. 5, pp. 75-81, Oct. 2019.
83. F. Luo, **Chunxiao Jiang**, S. Yu, Y. Li, Y. Ren and Z. Liu, "[Stability of Cloud-based UAV System Supporting Big Data Acquisition and Processing](#)", *IEEE Transactions on Cloud Computing*, vol. 7, no. 3, pp. 866-877, Sep. 2019.
84. X. Li, H. Yao, J. Wang, X. Xu, **Chunxiao Jiang**, and L. Hanzo, "[A Near-Optimal UAV-Aided Radio Coverage Strategy for Dense Urban Areas](#)", *IEEE Transactions on Vehicular Technology*, vol. 68, no. 9, pp. 9098-9109, Sep. 2019.
85. R. Duan, J. Wang, **Chunxiao Jiang**, H. Yao, Y. Ren, and Y. Qian "[Resource Allocation for Multi-UAV Aided IoT NOMA Uplink Transmission Systems](#)", *IEEE Internet of Things Journal*, vol. 6, no. 4, pp. 7025-7037, Aug. 2019.
86. B. Deng, **Chunxiao Jiang**, J. Yan, N. Ge, S. Guo and S. Zhao, "[Joint Multigroup Precoding and Resource Allocation in Integrated Terrestrial-Satellite Networks](#)", *IEEE Transactions on Vehicular Technology*, vol. 68, no. 8, pp. 8075-8090, Aug. 2019.
87. H. Yao, X. Yuan, P. Zhang, J. Wang, **Chunxiao Jiang**, and M. Guizani, "[Machine Learning Aided Load Balance Routing Scheme Considering Queue Utilization](#)", *IEEE Transactions on Vehicular Technology*, vol. 68, no. 8, pp. 7987-7999, Aug. 2019.
88. L. Yin, C. Jiang, **Chunxiao Jiang**, N. Ge, L. Kuang, and M. Guizani, "[A Communication Framework with Unified Efficiency and Secrecy](#)", *IEEE Wireless Communications*, vol. 26, no. 4, pp. 133-139, Aug. 2019.
89. H. Yao, M. Li, J. Du, P. Zhang, **Chunxiao Jiang**, and Z. Han, "[Artificial Intelligence for Information-Centric Networks](#)", *IEEE Communications Magazine*, vol. 57, no. 6, pp. 47-53, Jun. 2019.

90. C. Qiu, F. R. Yu, H. Yao, **Chunxiao Jiang**, X. Fang, and C. Zhao, "[Blockchain-Based Software-Defined Industrial Internet of Things: A Dueling Deep Q-Learning Approach](#)", *IEEE Internet of Things Journal*, vol. 6, no. 3, pp. 4627-4639, Jun. 2019.
91. H. Yao, T. Mai, J. Wang, Z. Ji, **Chunxiao Jiang**, and Y. Qian, "[Resource Trading in Blockchain-based Industrial Internet of Things](#)", *IEEE Transactions on Industrial Informatics*, vol. 15, no. 6, pp. 3602-3609, Jun. 2019. (**ESI Highly Cited Paper**)
92. X. Zhu, **Chunxiao Jiang**, L. Kuang, N. Ge, S. Guo, and J. Lu, "[Cooperative Transmission in Integrated Terrestrial-Satellite Networks](#)", *IEEE Network*, vol. 33, no. 3, pp. 204-210, Jun. 2019.
93. C. Zhang, **Chunxiao Jiang**, L. Kuang, J. Jin, Y. He, and Z. Han, "[Spatial Spectrum Sharing for Satellite and Terrestrial Communication Networks](#)", *IEEE Transactions on Aerospace and Electronic Systems*, vol. 55, no. 3, pp. 1075-1089, Jun. 2019.
94. J. Du, **Chunxiao Jiang**, Z. Han, H. Zhang, S. Mumtaz, and Y. Ren, "[Contract Mechanism and Performance Analysis for Data Transaction in Mobile Social Networks](#)", *IEEE Transactions on Network Science and Engineering*, vol. 6, no. 2, pp. 103-115, Jun. 2019.
95. J. Du, E. Gelenbe, **Chunxiao Jiang**, H. Zhang, Y. Ren and V. Poor, "[Peer Prediction-Based Trust Assessment and Trustworthy Service Rating in Social Networks](#)", *IEEE Transactions on Information Forensics & Security*, vol. 14, no. 6, pp. 1582-1594, Jun. 2019.
96. Z. Chen, X. Tao, **Chunxiao Jiang**, V. Leung, "[Joint Minimization of Wired and Wireless Traffic for Content Delivery by Multicast Pushing](#)", *IEEE Transactions on Wireless Communications*, vol. 18, no. 5, pp. 2828-2841, May. 2019.
97. S. Wu, H. Yao, **Chunxiao Jiang**, L. Kuang, and L. Hanzo, "[Downlink Channel Estimation for Massive MIMO Systems Relying on Vector Approximate Message Passing](#)", *IEEE Transactions on Vehicular Technology*, vol. 68, no. 5, pp. 5145-5148, May. 2019.
98. X. Tao, **Chunxiao Jiang**, J. Liu, A. Xiao, Y. Qian, and J. Lu, "[QoE Driven Resource Allocation in Next Generation Wireless Networks](#)", *IEEE Wireless Communications*, vol. 26, no. 2, pp. 78-85, Apr. 2019.
99. J. Wang, **Chunxiao Jiang**, Z. Wei, C. Pan, H. Zhang, and Y. Ren, "[Joint UAV Hovering Altitude and Power Control for Space-Air-Ground Three-Tier Networks](#)", *IEEE Internet of Things Journal*, vol. 6, no. 2, pp. 1741-1753, Apr. 2019.
100. R. Duan, J. Wang, **Chunxiao Jiang**, Y. Ren, and L. Hanzo, "[The Transmit-Energy vs Computation-Delay Trade-off in Gateway-Selection for Heterogeneous Cloud Aided Multi-UAV Systems](#)", *IEEE Transactions on Communications*, vol. 67, no. 4, pp. 3026-3039, Apr. 2019.
101. L. Xu, **Chunxiao Jiang**, Y. Chen, Y. Ren and K. J. R. Liu, "[User Participation in Collaborative Filtering Based Recommendation Systems: A](#)

- [Game Theoretic Approach](#)", *IEEE Transactions on Cybernetics*, vol. 49, no. 4, pp. 1339-1352, Apr. 2019.
102. X. Zhang, J. Wang, **Chunxiao Jiang**, C. Yan, Y. Ren, and L. Hanzo, "[Robust Beamforming for Multibeam Satellite Communication in the Face of Phase Perturbations](#)", *IEEE Transactions on Vehicular Technology*, vol. 68, no. 3, pp. 3043-3047, Mar. 2019.
103. C. Zhang, **Chunxiao Jiang**, J. Jin, S. Wu, L. Kuang, and S. Guo, "[Spectrum Sensing and Recognition in Satellite Systems](#)", *IEEE Transactions on Vehicular Technology*, vol. 68, no. 3, pp. 2502-2516, Mar. 2019.
104. J. Du, E. Gelenbe, **Chunxiao Jiang**, H. Zhang, Y. Ren and T. Quek, "[Double Auction Mechanism Design for Video Caching in Heterogeneous Ultra-Dense Networks](#)", *IEEE Transactions on Wireless Communications*, vol. 18, no. 3, pp. 1669-1683, Mar. 2019.
105. F. Li, H. Yao, J. Wang, **Chunxiao Jiang**, X. Xu, and S. Guo, "[Multi-Controller Resource Management for Software Defined Wireless Networks](#)", *IEEE Communications Letters*, vol. 23, no. 3, pp. 506-509, Mar. 2019.
106. X. Tao, Y. Liu, **Chunxiao Jiang**, Z. Wang, and X. Qin, "[QoE-Oriented Multimedia Assessment: A Facial Expression Recognition Approach](#)", *IEEE Multimedia*, vol. 26, no. 1, pp. 41-50, Jan. 2019.
107. L. Wang, **Chunxiao Jiang**, L. Kuang, S. Wu, L. Fei, and H. Huang, "[Mission Scheduling in Space Network With Antenna Dynamic Setup Times](#)", *IEEE Transactions on Aerospace and Electronic Systems*, vol. 55, no. 1, pp. 31-45, Jan. 2019.
108. L. Xu, **Chunxiao Jiang**, N. He, Z. Han, and A. Benslimane, "[Trust-based Collaborative Privacy Management in Online Social Networks](#)", *IEEE Transactions on Information Forensics & Security*, vol. 14, no. 1, pp. 48-60, Jan. 2019.
109. H. Zhang, **Chunxiao Jiang**, L. Yang, E. Basar, and L. Hanzo, "[Linear Precoded Index Modulation](#)", *IEEE Transactions on Communication*, vol. 67, no. 1, pp. 350-363, Jan. 2019.
110. J. Du, **Chunxiao Jiang**, E. Gelenbe, L. Xu, J. Li, and Y. Ren, "[Distributed Data Privacy Preservation in IoT Applications](#)", *IEEE Wireless Communications*, vol. 25, no. 6, pp. 68-76, Dec. 2018.
111. L. Wang, **Chunxiao Jiang**, L. Kuang, S. Wu, H. Huang, and Y. Qian, "[High-Efficient Resource Allocation in Data Relay Satellite Systems with Users Behavior Coordination](#)", *IEEE Transactions on Vehicular Technology*, vol. 67, no. 12, pp. 12072-12085, Dec. 2018.
112. H. Zhang, **Chunxiao Jiang**, M. Bennis, M. Debbah, Z. Han and V. C. M. Leung, "[Heterogeneous Ultra Dense Networks: Part 2](#)", *IEEE Communications Magazine*, vol. 56, no. 6, pp. 12-13, Jun. 2018.
113. C. Yan, J. Wang, L. Fu, **Chunxiao Jiang**, M. Chen and Y. Ren, "[Timing Synchronization and Ranging in Networked UAV-Aided OFDM](#)"

- Systems", *Journal of Communications and Information Networks*, vol. 3, no. 4, pp. 45-54, Dec. 2018.
114. X. Lin, S. Wu, **Chunxiao Jiang**, L. Kuang, J. Yan and L. Hanzo, "Estimation of Broadband Multiuser Millimeter Wave Massive MIMO-OFDM Channels by Exploiting Their Sparse Structure", *IEEE Transactions on Wireless Communications*, vol. 17, no. 6, pp. 3959-3973, Jun. 2018.
115. C. Zhang, J. Jin, L. Kuang, **Chunxiao Jiang**, and Y. He, "Blind Spot of Spectrum Awareness Techniques in Non-geostationary Systems", *IEEE Transactions on Aerospace and Electronic System*, vol. 54, no. 6, pp. 3150-3159, Dec. 2018.
116. J. Du, **Chunxiao Jiang**, H. Zhang, Y. Ren and M. Guizani, "Auction Design and Analysis for SDN-based Traffic Offloading in Hybrid Satellite-Terrestrial Networks", *IEEE Journal on Selected Areas in Communications*, vol. 36, no. 10, pp. 2202-2217, Oct. 2018.
117. N. Yang, H. Zhang, K. Long, **Chunxiao Jiang**, and Y. Yang, "Spectrum Management Scheme in Fog IoT Networks", *IEEE Communications Magazine*, vol. 56, no. 10, pp. 101-107, Oct. 2018.
118. L. Xu, **Chunxiao Jiang**, N. He, Y. Qian, Y. Ren and J. Li, "Check in or Not? A Stochastic Game for Privacy Preserving in Point-of-Interest Recommendation System", *IEEE Internet of Things Journal*, vol. 5, no. 5, pp. 4178-4190, Oct. 2018.
119. **Chunxiao Jiang**, Y. Chen, Q. Wang and K. J. R. Liu, "Data-Driven Auction Mechanism Design in IaaS Cloud Computing", *IEEE Transactions on Services Computing*, vol. 11, no. 5, pp. 743-756, Sep. 2018.
120. H. Zhang, B. Wang, **Chunxiao Jiang**, K. Long, A. Nallanathan, V. Leung and V. Poor, "Energy Efficient Dynamic Resource Optimization in NOMA Networks", *IEEE Transactions on Wireless Communications*, vol. 17, no. 9, pp. 5671-5683, Sep. 2018.
121. Y. Meng, **Chunxiao Jiang**, T. Quek, Z. Han, and Y. Ren, "Social Learning Based Inference for Crowdsensing in Mobile Social Networks", *IEEE Transactions on Mobile Computing*, vol. 17, no. 8, pp. 1966-1979, Aug. 2018.
122. J. Du, **Chunxiao Jiang**, H. Zhang, X. Wang, Y. Ren and M. Debbah, "Secure Satellite-Terrestrial Transmission Over Incumbent Terrestrial Networks via Cooperative Beamforming", *IEEE Journal on Selected Areas in Communications*, vol. 36, no. 7, pp. 1367-1382, Jul. 2018.
123. J. Wang, Y. Huang, Z. Feng, **Chunxiao Jiang**, H. Zhang and V. Leung, "Reliable Traffic Density Estimation in Vehicular Network", *IEEE Transactions on Vehicular Technology*, vol. 67, no. 7, pp. 6424-6437, Jul. 2018.
124. B. Zhang, **Chunxiao Jiang**, J. Yu, and Z. Han, "A Contract Game for Direct Energy Trading in Smart Grid", *IEEE Transactions on Smart Grid*, vol. 9, no. 4, pp. 2873-2884, Jul. 2018.
125. X. Lyu, **Chunxiao Jiang**, and N. Ge, "Outage Probability Analysis and Dynamic Criterion Calculation Under the Plasma Sheath Channel", *IEEE Transactions on Plasma Science*, vol. 46, no. 6, pp. 1995-2002, Jun. 2018.

126. X. Lin, S. Wu, **Chunxiao Jiang**, L. Kuang, J. Yan, and L. Hanzo, "[Estimation of Broadband Multiuser Millimeter-Wave Massive MIMO-OFDM Channels by Exploiting Their Sparse Structure](#)", *IEEE Transactions on Wireless Communications*, vol. 17, no. 6, pp. 3959-3973, Jun. 2018.
127. Y. Zhang, **Chunxiao Jiang**, J. Wang, J. Yuan, Z. Han, and J. Cao, "[Coalition Formation Game Based Access Point Selection for LTE-U and Wi-Fi Coexistence](#)", *IEEE Transactions on Industrial Informatics*, vol. 14, no. 6, pp. 2653-2665, Jun. 2018.
128. Y. Zhang, **Chunxiao Jiang**, Z. Han, J. Yuan, and J. Cao, "[Green WiFi Management: Implementation on Partially Overlapped Channels](#)", *IEEE Transactions on Green Communications and Networking*, vol. 2, no. 2, pp. 346-359, Jun. 2018.
129. X. Zhu, **Chunxiao Jiang**, L. Yin, L. Kuang, N. Ge and J. Lu, "[Cooperative Multigroup Multicast Transmission in Integrated Terrestrial-Satellite Networks](#)", *IEEE Journal on Selected Areas in Communications*, vol. 36, no. 5, pp. 981-992, May. 2018.
130. Z. Zhang, **Chunxiao Jiang**, S. Guo, Y. Qian, and Y. Ren, "[Temporal Centrality-Balanced Traffic Management for Space Satellite Networks](#)", *IEEE Transactions on Vehicular Technology*, vol. 67, no. 5, pp. 4427-4439, Apr. 2018.
131. J. Wang, **Chunxiao Jiang**, Z. Han, Y. Ren and L. Hanzo, "[Internet of Vehicles: Sensing Aided Transportation Information Collection and Diffusion](#)", *IEEE Transactions on Vehicular Technology*, vol. 67, no. 5, pp. 3813-3825, Apr. 2018.
132. J. Wang, **Chunxiao Jiang**, H. Zhang, V. Leung and L. Hanzo, "[Learning-Aided Network Association for Hybrid Indoor LiFi-WiFi Systems](#)", *IEEE Transactions on Vehicular Technology*, vol. 67, no. 4, pp. 3561-3574, Apr. 2018.
133. Y. Zhang, **Chunxiao Jiang**, J. Wang, Z. Han, J. Yuan and J. Cao, "[Green WiFi Implementation and Management in Dense Autonomous Environments for Smart Cities](#)", *IEEE Transactions on Industrial Informatics*, vol. 14, no. 4, pp. 1552-1563, Apr. 2018.
134. X. Chen, G. Zhang, **Chunxiao Jiang**, and S. Wu, "[GNSS Augmentation by FM Radio Symbiosis](#)", *IEEE Access*, vol. 6, no. 1, pp. 5162-5169, Mar. 2018.
135. Q. Xu, **Chunxiao Jiang**, Y. Han, B. Wang, and K. J. R. Liu, "[Waveforming: An Overview with Beamforming](#)", *IEEE Communications Surveys and Tutorials*, vol. 20, no. 1, pp. 132-149, Mar. 2018.
136. J. Du, **Chunxiao Jiang**, C. Chen, Y. Ren, and V. Poor, "[Community-Structured Evolutionary Game for Privacy Protection in Social Networks](#)", *IEEE Transactions on Information Forensics & Security*, vol. 13, no. 3, pp. 574-589, Mar. 2018.
137. J. Wang, **Chunxiao Jiang**, K. Zhang, T. Quek, Y. Ren and L. Hanzo, "[Vehicular Sensing Networks in a Smart City: Principles, Technologies and](#)

- [Applications](#)", *IEEE Wireless Communications*, vol. 25, no. 1, pp. 122-132, Feb. 2018.
138. B. Deng, **Chunxiao Jiang**, L. Kuang, S. Guo, J. Lu, and S. Zhao, "[Two-Phase Task Scheduling in Data Relay Satellite Systems](#)", *IEEE Transactions on Vehicular Technology*, vol. 67, no. 2, pp. 1782-1793, Feb. 2018.
139. J. Du, E. Gelenbe, **Chunxiao Jiang**, H. Zhang, and Y. Ren, "[Contract Design for Traffic Offloading and Resource Allocation in Software Defined Ultra-Dense Networks](#)", *IEEE Journal on Selected Areas in Communications*, vol. 35, no. 11, pp. 2457-2467, Nov. 2017.
140. K. Xiong, B. Wang, **Chunxiao Jiang**, and K. Liu, "[A Broad Beamforming Approach for High-Mobility Communications](#)", *IEEE Transactions on Vehicular Technology*, vol. 66, no. 11, pp. 10546-10550, Nov. 2017.
141. L. Kuang, X. Chen, **Chunxiao Jiang**, H. Zhang, and S. Wu, "[Radio Resource Management in Future Terrestrial-Satellite Communication Networks](#)", *IEEE Wireless Communications*, vol. 24, no. 5, pp. 81-87, Oct. 2017.
142. X. Zhu, **Chunxiao Jiang**, L. Kuang, N. Ge and J. Lu, "[Non-orthogonal Multiple Access Based Integrated Terrestrial-Satellite Networks](#)", *IEEE Journal on Selected Areas in Communications*, vol. 35, no. 10, pp. 2253-2267, Oct. 2017.
143. **Chunxiao Jiang**, C. Jiang, N. Beaulieu, Y. Li, Y. Zou, and Y. Ren, "[DYWAMIT: Asynchronous Wideband Dynamic Spectrum Sensing and Access System](#)", *IEEE Systems Journal*, vol. 11, no. 3, pp. 1777-1788, Sep. 2017.
144. H. Zhang, S. Huang, **Chunxiao Jiang**, K. Long, V. Leung and V. Poor, "[Energy Efficient User Association and Power Allocation in Millimeter-Wave-Based Ultra Dense Networks With Energy Harvesting Base Stations](#)", *IEEE Journal on Selected Areas in Communications*, vol. 35, no. 9, pp. 1936-1947, Sep. 2017. (**ESI Highly Cited Paper**)
145. J. Wang, **Chunxiao Jiang**, Z. Han, Y. Ren, R. Maunder and L. Hanzo, "[Taking Drones to the Next Level Cooperative Distributed Unmanned-Aerial-Vehicular Networks for Small and Mini Drones](#)", *IEEE Vehicular Technology Magazine*, vol. 12, no. 3, pp. 73-82, Sep. 2017. (**ESI Highly Cited Paper**)
146. X. Lyu, **Chunxiao Jiang**, W. Feng and N. Ge, "[A Shock Tube Experimental System for Communication Performance Evaluation Under the Time-Varying Plasma Flow Channel](#)", *IEEE Transactions on Plasma Science*, vol. 45, no. 9, pp. 2450-2459, Sep. 2017.
147. Y. Gu, **Chunxiao Jiang**, L. Cai, M. Pan, L. Song and Z. Han, "[Dynamic Path To Stability in LTE-Unlicensed with User Mobility: A Matching Framework](#)", *IEEE Transactions on Wireless Communications*, vol. 16, no. 7, pp. 4547-4561, Jul. 2017.
148. **Chunxiao Jiang**, B. Wang, Y. Han, Z. Wu, and K. J. R. Liu, "[Exploring Spatial Focusing Effect for Spectrum Sharing and Network Association](#)", *IEEE Transactions on Wireless Communications*, vol. 16, no. 7, pp. 4216-4231, Jul. 2017.

149. Y. Meng, **Chunxiao Jiang**, H. Chen and Y. Ren, "[Cooperative Device-to-Device Communications -- Social Networking Perspectives](#)", *IEEE Network*, vol. 31, no. 3, pp. 38-44, Jun. 2017.
150. Z. Wu, B. Wang, **Chunxiao Jiang**, and K. J. R. Liu, "[Downlink MAC Scheduler for 5G Communications with Spatial Focusing Effects](#)", *IEEE Transactions on Wireless Communications*, vol. 16, no. 6, pp. 3968-3980, Jun. 2017.
151. X. Lin, S. Wu, X. Meng, Z. Ni, L. Kuang and **Chunxiao Jiang**, "[Estimation of Sparse Massive MIMO-OFDM Channels with Approximately Common Support](#)", *IEEE Communications Letters*, vol. 21, no. 5, pp. 1179-1182, May 2017.
152. Y. Zhang, **Chunxiao Jiang**, L. Song, M. Pan, Z. Dawy and Z. Han, "[Incentive Mechanism for Mobile Crowdsourcing Using a Optimized Tournament Model](#)", *IEEE Journal on Selected Areas in Communications*. vol. 35, no. 4, pp. 880-892, Apr. 2017.
153. J. Du, **Chunxiao Jiang**, J. Wang, S. Yu, Z. Han, and Y. Ren, "[Resource Allocation in Space Multi-Access Systems](#)", *IEEE Transactions on Aerospace and Electronic Systems*, vol. 53, no. 2, pp. 598-618, Apr. 2017.
154. **Chunxiao Jiang**, H. Zhang, Y. Ren, Z. Han, K. Chen, and L. Hanzo, "[Machine Learning Paradigms for Next-Generation Wireless Networks](#)", *IEEE Wireless Communications*, vol. 24, no. 2, pp. 98-105, Apr. 2017. (**ESI Highly Cited Paper**)
155. H. Xu, J. Wang, J. Yuan, **Chunxiao Jiang**, C. Zhang, "[Generalized RQ Minimization with Applications in Array Transmit Beamforming](#)", *IEEE Antennas and Wireless Propagation Letters*, vol. 16, no. 1, pp. 177-180, Mar. 2017.
156. **Chunxiao Jiang**, L. Kuang, Z. Han, Y. Ren, and L. Hanzo, "[Information Credibility Modeling in Cooperative Networks: Equilibrium and Mechanism Design](#)", *IEEE Journal on Selected Areas in Communications*, vol. 35, no. 2, pp. 432-448, Feb. 2017.
157. Y. Zhang, L. Song, **Chunxiao Jiang**, N. H. Tran, Z. Dawy and Z. Han, "[A Social-Aware Framework for Efficient Information Dissemination in Wireless Ad Hoc Networks](#)", *IEEE Communications Magazine*, vol. 55, no. 1, pp. 174-179, Jan. 2017.
158. L. Xu, **Chunxiao Jiang**, Y. Qian, Y. Ren, Y. Zhao and J. Li, "[Dynamic Privacy Pricing: a Multi-armed Bandit Approach with Time-variant Rewards](#)", *IEEE Transactions on Information Forensics & Security*, vol. 12, no. 2, pp. 271-285, Jan. 2017.
159. X. Zhao, Y. Zhang, **Chunxiao Jiang**, J. Yuan, and J. Cao, "[Mobile-Aware Topology Control Potential Game: Equilibrium and Connectivity](#)", *IEEE Internet of Things Journal*, vol. 3, no. 6, pp. 1267-1273, Dec. 2016.
160. **Chunxiao Jiang**, H. Zhang, Z. Han, Y. Ren, V. Leung, and L. Hanzo, "[Information-Sharing Outage-Probability Analysis of Vehicular](#)

- [Networks](#)", *IEEE Transactions on Vehicular Technology*, vol. 65, no. 12, pp. 9479-9492, Dec. 2016.
161. J. Wang, **Chunxiao Jiang**, Z. Han, Y. Ren, and L. Hanzo, "[Network Association Strategies for an Energy Harvesting Aided Super-WiFi Network Relying on Measured Solar Activity](#)", *IEEE Journal on Selected Areas in Communications*, vol. 34, no. 12, pp. 3785-3797, Dec. 2016.
 162. Y. Meng, **Chunxiao Jiang**, L. Xu, Y. Ren, and Z. Han, "[User Association in Heterogeneous Networks: A Social Interaction Approach](#)", *IEEE Transactions on Vehicular Technology*, vol. 65, no. 12, pp. 9982-9993, 2016.
 163. L. Xu, **Chunxiao Jiang**, Y. Shen, T. Quek, Z. Han and Y. Ren, "[Energy Efficient D2D Communications: a Perspective of Mechanism Design](#)", *IEEE Transactions on Wireless Communications*, vol. 15, no. 11, pp. 7272-7285, 2016.
 164. X. Cao, Y. Chen, **Chunxiao Jiang**, and K. J. R. Liu, "[Evolutionary Information Diffusion over Heterogeneous Social Networks](#)", *IEEE Transactions on Signal and Information Processing over Networks*, vol. 2, no. 4, pp. 595-610, 2016.
 165. Q. Yang, T. Jiang, **Chunxiao Jiang**, Z. Han, and Z. Zhou, "[Joint Optimization of User Grouping and Transmitter Connection on Multi-cell SNR Blind Interference Alignment](#)", *IEEE Access*, vol. 4, no. 1, pp. 4974-4988, 2016.
 166. Y. Gan, **Chunxiao Jiang**, N. Beaulieu, J. Wang, and Y. Ren, "[Secure Collaborative Spectrum Sensing: a Peer-Prediction Method](#)", *IEEE Transactions on Communications*, vol. 64, no. 10, pp. 4283-4294, 2016.
 167. J. Wang, **Chunxiao Jiang**, T. Quek, X. Wang, and Y. Ren, "[The Value Strength Aided Information Diffusion in Socially-Aware Mobile Networks](#)", *IEEE Access*, vol. 4, no. 1, pp. 3907-3919, 2016.
 168. Y. Zhang, **Chunxiao Jiang**, Z. Han, S. Yu and J. Yuan, "[Interference-Aware Coordinated Power Allocation in Autonomous Wi-Fi Environment](#)", *IEEE Access*, vol. 4, no. 1, pp. 3489-3500, 2016.
 169. J. Wang, **Chunxiao Jiang**, Z. Bie, T. Quek, and Y. Ren, "[Mobile Data Transactions in Device-to-Device Communication Networks: Pricing and Auction](#)", *IEEE Wireless Communications Letters*, vol. 5, no. 3, pp. 300-303, 2016.
 170. J. Wang, **Chunxiao Jiang**, H. Zhang, V. Leung, and Y. Ren, "[Aggressive Congestion Control Mechanism for Space Systems](#)", *IEEE Aerospace and Electronic Systems Magazine*, vol. 31, no. 3, pp. 28-33, 2016.
 171. L. Xu, **Chunxiao Jiang**, Y. Ren, and H. Chen, "[Microblog Dimensionality Reduction: A Deep Learning Approach](#)", *IEEE Transactions on Knowledge and Data Engineering*, vol. 28, no. 7, pp. 1779-1789, 2016.
 172. Y. Shen, **Chunxiao Jiang**, T. Quek and Y. Ren, "[Location-Aware Device Communication Design: Exploration and Exploitation on Energy](#)", *IEEE Wireless Communications*, vol. 23, no. 2, pp. 46-52, 2016.

173. J. Du, **Chunxiao Jiang**, Y. Qian, Z. Han, and Y. Ren, "[Resource Allocation with Video Traffic Prediction in Cloud-based Space Systems](#)", *IEEE Transactions on Multimedia*, vol. 18, no. 5, pp. 820-830, 2016.
174. J. Du, **Chunxiao Jiang**, Q. Guo, M. Guizani, and Y. Ren, "[Cooperative Earth Observation Through Complex Space Information Networks](#)", *IEEE Wireless Communications*, vol. 23, no. 2, pp. 136-144, 2016.
175. H. Zhang, **Chunxiao Jiang**, Q. Hu, and Y. Qian, "[Self-Organization in Disaster Resilient Heterogeneous Small Cell Networks](#)", *IEEE Network*, vol. 30, no. 2, pp. 116-121, 2016.
176. H. Zhang, **Chunxiao Jiang**, X. Mao and H. Chen, "[Interference-Limited Resource Optimization in Cognitive Femtocells with Fairness and Imperfect Spectrum Sensing](#)", *IEEE Transactions on Vehicular Technology*, vol. 65, no. 3, pp. 1761-1771, 2016. (**ESI Highly Cited Paper**)
177. L. Xu, **Chunxiao Jiang**, Y. Chen, J. Wang and Y. Ren, "[A Framework for Categorizing and Applying Privacy-Preservation Techniques in Big Data Mining](#)", *IEEE Computer*, vol. 49, no. 2, pp. 54-62, 2016.
178. Y. Shen, **Chunxiao Jiang**, T. Quek and Y. Ren, "[Device-to-Device-Assisted Communications in Cellular Networks: An Energy Efficient Approach in Downlink Video Sharing Scenario](#)", *IEEE Transactions on Wireless Communications*, vol. 15, no. 2, pp. 1575-1587, 2016.
179. Y. Yang, Y. Chen, **Chunxiao Jiang** and K. J. R. Liu, "[Wireless Network Association Game with Data-Driven Statistical Modelling](#)", *IEEE Transactions on Wireless Communications*, vol. 15, no. 1, pp. 512-524, 2016.
180. Y. Chen, **Chunxiao Jiang**, C. Wang, Y. Gao and K. J. R. Liu, "[Decision Learning: Data Analytic Learning with Strategic Decision Making](#)", *IEEE Signal Processing Magazine*, vol. 33, no. 1, pp. 37-56, 2016.
181. J. Wang, J. Mu, S. Wei, **Chunxiao Jiang**, and N. Beaulieu, "[Statistical Characterization of Decryption Errors in Block Ciphred Systems](#)", *IEEE Transactions on Communications*, vol. 63, no. 11, pp. 4363-4376, 2015.
182. J. Guo, X. Liu, **Chunxiao Jiang**, J. Cao and Y. Ren, "[Distributed Fault-Tolerant Topology Control in Cooperative Wireless Ad Hoc Networks](#)", *IEEE Transactions on Parallel and Distributed Systems*, vol. 26, no. 10, pp. 2699-2710, 2015.
183. H. Zhang, H. Liu, **Chunxiao Jiang**, X. Chu, A. Nallanathan and X. Wen, "[A Practical Semi-dynamic Clustering Scheme Using Affinity Propagation in Cooperative Picocells](#)", *IEEE Transactions on Vehicular Technology*, vol. 64, no. 9, pp. 4372-4377, 2015.
184. **Chunxiao Jiang**, X. Wang, J. Wang, H. Chen and Y. Ren, "[Security in Space Information Networks](#)", *IEEE Communications Magazine*, vol. 53, no. 8, pp. 82-88, 2015.
185. L. Xu, **Chunxiao Jiang**, Y. Chen, Y. Ren and K. J. R. Liu, "[Privacy or Utility in Data Collection? A Contract Theoretic Approach](#)", *IEEE Journal of Selected Topics in Signal Processing*, vol. 9, no. 7, pp. 1256-1269, 2015.

186. H. Zhang, **Chunxiao Jiang**, J. Chen and V. Leung, "[Cooperative Interference Mitigation and Handover Management for Heterogeneous Cloud Small Cell Networks](#)", *IEEE Wireless Communications*, vol. 22, no. 3, pp. 92-99, 2015 (**ESI Highly Cited Paper**)
187. **Chunxiao Jiang**, Y. Chen, Y. Ren and K. J. R. Liu, "[Maximizing Network Capacity with Optimal Source Selection: A Network Science Perspective](#)", *IEEE Signal Processing Letters*, vol. 22, no. 7, pp. 938-942, 2015.
188. **Chunxiao Jiang**, N. Beaulieu, L. Zhang, Y. Ren, M. Peng and H. Chen, "[Cognitive Radio Networks with Asynchronous Spectrum Sensing and Access](#)", *IEEE Network*, vol. 29, no. 3, pp. 88-95, 2015.
189. H. Zhang, **Chunxiao Jiang**, X. Chu, X. Wang and T. Quek, "[Resource Allocation for Cognitive Small Cell Networks: A Cooperative Bargaining Game Theoretic Approach](#)", *IEEE Transactions on Wireless Communications*, vol. 14, no. 6, pp. 3481-3493, 2015. (**ESI Highly Cited Paper**)
190. **Chunxiao Jiang**, Y. Chen, K. J. R. Liu and Y. Ren, "[Network Economics in Cognitive Networks](#)", *IEEE Communications Magazine*, vol. 53, no. 5, pp. 75-81, 2015.
191. T. Zhou, Y. Chen, **Chunxiao Jiang** and K. J. R. Liu, "[Pricing Game for Time Mute in Femto-Macro Co-existent Networks](#)", *IEEE Transactions on Wireless Communications*, vol. 14, no. 4, pp. 2118-2130, 2015.
192. **Chunxiao Jiang**, Y. Chen, Y. Gao and K. J. R. Liu, "[Indian Buffet Game with Negative Network Externality and Non-Bayesian Social Learning](#)", *IEEE Transactions on Systems, Man and Cybernetics: Systems*, vol. 45, no. 4, pp. 609-623, 2015.
193. F. Luo, **Chunxiao Jiang**, J. Du, J. Yuan, Y. Ren, S. Yu and M. Guizani, "[A Distributed Gateway Selection Algorithm for UAV Networks](#)", *IEEE Transactions on Emerging Topics in Computing*, vol. 3, no. 1, pp. 22-33, 2015.
194. **Chunxiao Jiang**, Y. Chen and K. J. R. Liu, "[Data-Driven Optimal Throughput Analysis for Route Selection in Cognitive Vehicular Networks](#)", *IEEE Journal on Selected Areas in Communications*, vol. 32, no. 11, pp. 2149-2162, 2014.
195. L. Xu, **Chunxiao Jiang**, J. Wang, J. Yuan and Y. Ren, "[Information Security in Big Data: Privacy and Data Mining](#)", *IEEE Access*, vol. 2, no. 1, pp. 1149-1176, 2014. (**Listed as Most Popular articles on IEEE Xplore SINCE Apr. 2015.**)
196. **Chunxiao Jiang**, Y. Chen, K. J. R. Liu and Y. Ren, "[Optimal Pricing Strategy for Operators in Cognitive Femtocell Networks](#)", *IEEE Transactions on Wireless Communications*, vol. 13, no. 9, pp. 5288-5301, 2014.
197. **Chunxiao Jiang**, Y. Chen and K. J. R. Liu, "[Evolutionary Dynamics of Information Diffusion over Social Networks](#)", *IEEE Transactions on Signal Processing*, vol. 62, no. 17, pp. 4573-4586, 2014.

198. H. Zhang, **Chunxiao Jiang**, N. Beaulieu, X. Chu, X. Wen and M. Tao, "[Resource Allocation in Spectrum-Sharing OFDMA Femtocells with Heterogeneous Services](#)", *IEEE Transactions on Communications*, vol. 62, no. 7, pp. 2366-2377, 2014. (**IEEE ComSoc Young Author Best Paper Award, ESI Highly Cited Paper**)
199. **Chunxiao Jiang**, H. Zhang, Y. Ren and H. Chen, "[Energy-Efficient Non-cooperative Cognitive Radio Networks: Micro, Meso and Macro Views](#)", *IEEE Communications Magazine*, vol. 52, no. 7, pp. 14-20, 2014.
200. **Chunxiao Jiang**, Y. Chen and K. J. R. Liu, "[Graphical Evolutionary Game for Information Diffusion over Social Networks](#)", *IEEE Journal of Selected Topics in Signal Processing*, vol. 8, no. 4, pp. 524-536, 2014.
201. **Chunxiao Jiang**, Y. Chen and K. J. R. Liu, "[On the Equivalence of Evolutionary Stable Strategies](#)", *IEEE Communications Letters*, vol. 18, no. 6, pp. 995-998, 2014.
202. Y. Chen, F. Han, Y. Yang, H. Ma, Y. Han, **Chunxiao Jiang**, H-Q. Lai, D. Claffey, Z. Safar and K. J. R. Liu, "[Time-Reversal Wireless Paradigm for Green Internet of Things: An Overview](#)", *IEEE Internet of Things Journal*, vol. 1, no. 1, pp. 81-98, 2014.
203. **Chunxiao Jiang**, Y. Chen, and K. J. R. Liu, "[Multi-Channel Sensing and Access Game: Bayesian Social Learning with Negative Network Externality](#)", *IEEE Transactions on Wireless Communications*, vol. 13, no. 4, pp. 2176 - 2188, 2014.
204. **Chunxiao Jiang**, Y. Chen, Y. Yang, C. Wang and K. J. R. Liu, "[Dynamic Chinese Restaurant game: theory and application to cognitive radio networks](#)", *IEEE Transactions on Wireless Communications*, vol. 13, no. 4, pp. 1960 - 1973, 2014.
205. Y. Yang, Y. Chen, **Chunxiao Jiang**, C. Wang and K. J. R. Liu, "[Wireless Access Network Selection Game with Negative Network Externality](#)", *IEEE Transactions on Wireless Communications*, vol. 12, no. 10, pp. 5048-5060, 2013.
206. **Chunxiao Jiang**, Y. Chen, and K. J. R. Liu, "[Distributed adaptive networks: a graphical evolutionary game theoretic view](#)", *IEEE Transactions on Signal Processing*, vol. 61, no. 22, pp. 5675-5688, 2013.
207. **Chunxiao Jiang**, Y. Chen, Y. Gao and K. J. R. Liu, "[Joint Spectrum Sensing and Access Evolutionary Game in Cognitive Radio Networks](#)", *IEEE Transactions on Wireless Communications*, vol. 12, no. 5, pp. 2470-2483, 2013.
208. **Chunxiao Jiang**, Y. Chen, K. J. R. Liu and Y. Ren, "[Renewal-Theoretical Dynamic Spectrum Access in Cognitive Radio Network with Unknown Primary Behavior](#)", *IEEE Journal on Selected Areas in Communications*, vol. 31, no. 3, pp. 406-416, 2013.
209. **Chunxiao Jiang**, N. He, Y. Ren, C. Chen and J. Ma, "[uSD: Universal Sensor Entry Data Card](#)", *IEEE Transactions on Consumer Electronics*, vol.56, no.03, pp. 1450-1456, Aug. 2010.

Professional Activities

Editor

- Associate Editor of IEEE Transactions on Network Science and Engineering, 2021-Now
- Technical Editor of IEEE Wireless Communications, 2021-Now
- Associate Editor of IEEE Transactions on Communications, 2020-Now
- Associate Editor of IEEE Internet of Things Journal, 2019-Now
- Associate Editor of IEEE Communications Letters, 2019-Now
- Technical Editor of IEEE Network, 2018-2021
- Editor of International Journal of Satellite Communications and Networking, 2019-now
- Associate Editor of Wiley Security and Communication Networks Journal, 2016-Now
- Editorial Board Member of International Journal of Big Data Intelligence, 2016-now
- Associate Editor of Wiley Wireless Communications and Mobile Computing, 2016-2017
- Guest Editor of IEEE Transactions on Cognitive Communications and Networking "Machine Learning and Artificial Intelligence for the Physical Layer"
- Guest Editor of IEEE Transactions on Network Science and Engineering "Heterogeneous Communications Networks"
- Guest Editor of China Communications "Measurement and Applications of QoE For Multimedia Communications" Oct. 2018
- Guest Editor of IEEE Communications Magazine "Heterogeneous Ultra Dense Networks" Part 1 Dec. 2017, Part 2 Jun. 2018
- Guest Editor of ACM/Springer Mobile Networks & Applications (MONET) "5G Technologies for Future Wireless Networks" Jul. 2018

- Guest Editor of ACM/Springer Mobile Networks & Applications (MONET) "Game Theory for 5G Wireless Networks" May. 2017

Conference Technical Program Committee Chair/Co-Chair

- IEEE WCNC 2021 Workshop Co-Chair for Internet of Integrated Space-Terrestrial Intelligent Systems and Applications
- IEEE Globecom 2021 Symposium Co-Chair for Communications and Information System Security Symposium
- IEEE CNS 2020 Publication Chair
- IEEE IWCMC 2020/19/18 Symposium Chair for Satellite Communications and Networking Symposium
- IEEE WCSP 2019 Symposium Chair for Space Information Networks Symposium
- IEEE ICC 2018 Symposium Co-Chair for Communications and Information System Security Symposium
- IEEE WiMob 2018 Publicity Chair (International Conference on Wireless and Mobile Computing, Networking and Communications)
- IEEE ICC 2018 Workshop Co-Chair: Workshop on Space Information Networks
- IEEE ICC 2017 Workshop Co-Chair: Workshop on 5G Ultra Dense Networks
- 5GWN 2017 Tutorials Chair (International Conference on 5G for Future Wireless Networks)
- GameNets 2015 Publicity Chair (International Conference on Game Theory for Networks)
- GameNets 2014 Symposium TPC Co-Chair: Game Theory in Wireless Communications Symposium

Conference Tutorial

- WPMC 2016 Ultra Dense Heterogeneous Small Cell Networks in 5G: Principles and Technologies

Conference TPC Member

- IEEE VTC 2015-now
- IEEE GLOBECOM 2015-now
- IEEE ICC 2015-now
- IEEE WCNC 2015-now
- IEEE INFOCOM'2014 Workshop on Security and Privacy in Big Data
- IEEE WCSP 2013
- IEEE PIMRC 2012

Journal Reviewer

1. IEEE Access
2. IEEE Network
3. IEEE Signal Processing Magazine
4. IEEE Communications Magazine
5. IEEE Wireless Communications
6. IEEE Vehicular Technology Magazine
7. IEEE Intelligent Systems
8. IEEE Systems Journal
9. IEEE Journal of Selected Areas in Communications
10. IEEE Journal of Selected Topics in Signal Processing
11. IEEE Transactions on Networking
12. IEEE Transactions on Signal Processing
13. IEEE Transactions on Communications
14. IEEE Transactions on Wireless Communications
15. IEEE Transactions on Vehicular Technology
16. IEEE Transactions on Mobile Computing
17. IEEE Transactions on Industrial Informatics
18. IEEE Transactions on Dependable and Secure Computing
19. IEEE Transactions on Parallel and Distributed Systems
20. IEEE Transactions on Cybernetics
21. IEEE Transactions on Systems, Man and Cybernetics: Systems
22. IEEE Transactions on Cloud Computing
23. IEEE Transactions on Control of Network Systems
24. IEEE Transactions on Cognitive Communications and Networking
25. IEEE Transactions on Computational Social Systems
26. IEEE Transactions on Network and Service Management
27. IEEE Transactions on Network Science and Engineering
28. IEEE Transactions on Signal and Information Processing over Networks
29. IEEE Transactions on Big Data
30. IEEE Internet of Things Journal
31. IEEE Signal Processing Letters
32. IEEE Communications Letters
33. IEEE Wireless Communications Letters