Chenye Wu

chenyewu@yeah.net • +86-755-235-19621 • www.wuchenye.cn

Mentors: Prof. Gabriela Hug, and Prof. Soummya Kar.

School of Science and Engineering • The Chinese University of Hong Kong, Shenzhen • P.R. China

The Chinese University of Hong Kong, Shenzhen/School of Sci. and Engr. Assistant Professor, Presidential Young Fellow	Shenzhen, CN Aug. 2020 – present
Tsinghua University / Institute for Interdisciplinary Information Sciences Assistant Professor	Веіјінд, CN Feb. 2017 – Aug. 2020
ETH Zurich/Electrical Engineering Department wiss. Mitarbeiter (Research Scientist)	Zurich, CH June. 2016 – Nov. 2016
University of California, Berkeley/Mechanical Engineering Department Postdoctoral Fellow Mentors: Prof. Kameshwar Poolla, and Prof. Pravin Varaiya	Berkeley, CA Nov. 2014 – May. 2016
Carnegie Mellon University/Electrical and Computer Engineering Department Postdoctoral Fellow	Ріттѕвикдн, РА Oct. 2013 – Oct. 2014

Education

Tsinghua University/Institute for Interdisciplinary Information Sciences	Beijing, China
Ph.D. in Computer Science and Technology	Aug. 2009 – Jul. 2013
Advisor: Prof. Andrew C. Yao	
Tsinghua University / Department of Electronic Engineering	Beijing, China
B.E. in Electronic Information Science and Technology	Aug. 2005 – Jul. 2009

Selected Honors

Excellence in reviewing, Automation of Electric Power Systems	Jan. 2021
CCF-Didi Gaia Collaborative Research Funds for Yong Scholars	Dec. 2020
Best Conference Paper Award IEEE PES General Meeting	Aug. 2020
Excellence in Computer Science Teaching Award, Ministry of Education, P.R. China	Nov. 2018
Excellent Class Mentor Award, Tsinghua University	Sept. 2018
The Best of Best Paper Award, IEEE PES General Meeting, 4 out of 1,600 papers	Jul. 2013
IEEE SmartGridComm Best Paper Award	<i>Nov.</i> 2012
Honorary Academic Rising Star from Ministry of Education, P.R. China	Aug. 2011

Citation Overview

Source: Google Scholar

1. Number of research publications: 119

2. Number of citations: 2919

3. H-index: 20

Publication List

Journals and Book Chapters

- 1. Jingshi Cui, Jiaman Wu, Chenye Wu* and Scott Moura, "Electric vehicles embedded virtual power plants dispatch mechanism design considering charging efficiencies," in Applied Energy, doi: 10.1016/j.apenergy. 2023.121984. (impact factor: 11.2, JCR Q1)
- 2. Chenbei Lu, Jinhao Liang, Nan Gu, Haoxiang Wang and **Chenye Wu***, "Manipulation-Proof Virtual Bidding Mechanism Design," in IEEE Transactions on Energy Markets, Policy and Regulation, doi: 10.1109/TEMPR. 2023.3321649.
- 3. Chenbei Lu, Jingshi Cui, Haoxiang Wang, Hongyu Yi and **Chenye Wu***, "Privacy Preserving User Energy Consumption Profiling: From Theory to Application," in IEEE Transactions on Smart Grid, doi: 10.1109/TSG. 2023.3315690. (impact factor: 9.6, JCR Q1)
- 4. Wenqian Jiang, Jiaqi Huang, Gaoyuan Xu and **Chenye Wu***, "Sample-Oriented Electricity Storage Sharing Mechanism Design With Performance Guarantees," in IEEE Transactions on Smart Grid, doi: 10.1109/TSG. 2023.3308686. (impact factor: 9.6, JCR Q1)
- 5. Qiushi Huang, Wenqian Jiang, Jian Shi, **Chenye Wu***, Dan Wang and Zhu Han, "Federated Shift-Invariant Dictionary Learning Enabled Distributed User Profiling," in IEEE Transactions on Power Systems, doi: 10.1109/TP-WRS.2023.3296976. (impact factor: 6.6, JCR Q1)
- 6. Nan Gu, Jingshi Cui and **Chenye Wu***, "An Auto-Tuned Robust Dispatch Strategy for Virtual Power Plants to Provide Multi-Stage Real-time Balancing Service," in IEEE Transactions on Smart Grid, doi: 10.1109/TSG.2023. 3265398. (impact factor: 9.6, JCR Q1)
- 7. Chenbei Lu, Nan Gu, Wenqian Jiang and **Chenye Wu***, "Sample-Adaptive Robust Economic Dispatch With Statistically Feasible Guarantees," in IEEE Transactions on Power Systems, doi: 10.1109/TPWRS.2023.3267097. (impact factor: 6.6, JCR Q1)
- 8. Chenbei Lu, Jinhao Liang, Wenqian Jiang, Jiaye Teng, and **Chenye Wu***, "High-Resolution Probabilistic Load Forecasting: A Learning Ensemble Approach", in Journal of the Franklin Institute, vol. 360, 2023. (impact factor: 4.1, JCR Q1)
- 9. Yaoyu Zhang, Qingsong Liu, Jian Sun, and **Chenye Wu***, "The Optimal Dynamic Regret for Smoothed Online Convex Optimization with Squared 12 Norm Switching Costs", in Journal of the Franklin Institute, vol. 360, 2023. (impact factor: 4.1, JCR Q1)
- 10. Wenqian Jiang, Chenbei Lu and **Chenye Wu***, "Robust Scheduling of Thermostatically Controlled Loads with Statistically Feasible Guarantees", in IEEE Transactions on Smart Grid, vol. 14, no. 5, pp. 3561-3572, Sept. 2023. (impact factor: 9.6, JCR Q1)

- 11. Haoxiang Wang and **Chenye Wu***, "Privacy Preservation for Time Series Data in the Electricity Sector", in IEEE Transactions on Smart Grid, vol. 14, no. 4, pp. 3136-3149, July 2023. (impact factor: 9.6, JCR Q1)
- 12. Jiaqi Huang, Qiushi Huang, Gaoyang Mou and **Chenye Wu***, "DPWGAN: High-Quality Load Profiles Synthesis with Differential Privacy Guarantees", in IEEE Transactions on Smart Grid, vol. 14, no. 4, pp. 3283-3295, July 2023. (impact factor: 9.6, JCR Q1)
- 13. Zipeng Liang, Zhao Yang Dong*, Chaojie Li, **Chenye Wu**, Haoyong Chen, "A Data-Driven Convex Model for Hybrid Microgrid Operation with Bi-directional Converters", in IEEE Transactions on Smart Grid, vol. 14, no. 2, pp. 1313-1316, March 2023. (impact factor: 9.6, JCR Q1)
- 14. Chenbei Lu, Jiaman Wu, Jingshi Cui, Yanyan Xu, **Chenye Wu***, Marta C Gonzalez, "Deadline Differentiated Dynamic EV Charging Price Menu Design", in IEEE Transactions on Smart Grid, vol. 14, no. 1, pp. 502-516, Jan. 2023. (impact factor: 9.6, JCR Q1)
- 15. Nan Gu, Jingshi Cui, and **Chenye Wu***, "A General Nash Bargaining Solution to the TSO-DSOs Coordinated Flexibility Trading Market", *Electric Power Systems Research*, vol. 212, 2022, 108329. (impact factor: 3.9, JCR Q2)
- 16. Chenbei Lu, Jiaman Wu, and **Chenye Wu***, "Privacy-Preserving Decentralized Price Coordination for EV Charging Stations", *Electric Power Systems Research*, vol. 212, 2022, 108355. (impact factor: 3.9, JCR Q2)
- 17. Yaoyu Zhang, **Chenye Wu**, Nan Gu, and Yu Yang*, "The robustness of low-carbon policies during China's electricity reform," *Energy Economics*, vol. 111, 2022, 106037. (impact factor: 12.8, JCR Q1)
- 18. Chenbei Lu, Wenqian Jiang, and Chenye Wu, "Effective end-to-end learning framework for economic dispatch," in IEEE Transactions on Network Science and Engineering, vol. 9, no. 4, pp. 2673-2683, 1 July-Aug. 2022. (impact factor: 6.6, JCR Q1)
- 19. Jian Sun, **Chenye Wu***, Weihua Peng*, J. Huang, C. Han, Y. Zhu and Y. Lyu, "Mining human preference via self-correction causal structure learning," in Scientific Reports, vol. 12, No. 1, pp. 1-17, 2022. (impact factor: 4.6, JCR Q2)
- 20. Jiaman Wu, Chenbei Lu and **Chenye Wu***, "Learning-Aided Framework for Storage Control Facing Renewable Energy," in IEEE Systems Journal, vol. 17, no. 1, pp. 652-663, March 2023. (impact factor: 4.4, JCR Q2)
- 21. Jiasheng Zhang, Jian Sun and **Chenye Wu***, "Enable a Carbon Efficient Power Grid via Minimal Uplift Payments," in IEEE Transactions on Sustainable Energy, vol. 13, no. 3, pp. 1329-1343, July 2022. (impact factor: 8.8, JCR Q1)
- 22. Yaoyu Zhang, Jian Sun and **Chenye Wu***, "Vehicle-to-Grid Coordination via Mean Field Game," *in IEEE Control Systems Letters*, vol. 6, pp. 2084-2089, 2022, doi: 10.1109/LCSYS.2021.3139266. (impact factor: 3.0)
- 23. Tianyu Zhao, Hanling Yi, Minghua Chen*, **Chenye Wu**, and Yunjian Xu, "Efficient and Robust Equilibrium Strategies of Utilities in Day-ahead Market with Load Uncertainty", in IEEE Systems Journal, vol. 16, no. 4, pp. 5246-5257, Dec. 2022. (impact factor: 4.4, JCR Q2)
- 24. Nan Gu, Jingshi Cui, **Chenye Wu***, "Power-Electronics-Enabled Transactive Energy Market Design for Distribution Networks", in IEEE Transactions on Smart Grid, vol. 13, no. 5, pp. 3968-3983, Sept. 2022. (impact factor: 9.6, JCR Q1)
- 25. Jingshi Cui, Nan Gu, Tianyu Zhao, **Chenye Wu***, Minghua Chen, "Forecast Competition in Energy Imbalance Market", in IEEE Transactions on Power Systems, vol. 37, no. 3, pp. 2397-2413, May 2022. (impact factor: 6.6,

- 26. Jingshi Cui, Nan Gu, Chenye Wu*, "Blockchain Enabled Data Transmission for Energy Imbalance Market", in IEEE Transactions on Sustainable Energy, vol. 13, no. 2, pp. 1254-1266, April 2022. (impact factor: 8.8, JCR Q1)
- 27. Nan Gu, Haoxiang Wang, Jiasheng Zhang, **Chenye Wu***, "Bridging Chance-constrained and Robust Optimization in an Emission-aware Economic Dispatch with Energy Storage", in IEEE Transactions on Power Systems, vol. 37, no. 2, pp. 1078-1090, March 2022. (impact factor: 6.6, JCR Q1)
- 28. Tianyu Wang, **Chenye Wu***, Wei Qi, "On Data-driven Multi-Product Pricing", *in IEEE Control Systems Letters*, vol. 5, no. 5, pp. 1687-1692, Nov. 2021. (impact factor: 3.0)
- 29. Pengfei Zhao, Chenghong Gu, Zhidong Cao*, Yichen Shen, Fei Teng, Xinlei Chen, **Chenye Wu**, Da Huo, Xu Xu, Shuangqi Li, "Data-Driven Multi-Energy Investment and Management under Earthquakes", *in IEEE Transactions on Industrial Informatics*, vol. 17, no. 10, pp. 6939-6950, Oct. 2021. (impact factor: 12.3, JCR Q1)
- Kui Wang, Yang Yu, Chenye Wu*, "Optimal Electricity Storage Sharing Mechanism for Single Peaked Time-of-Use Pricing Scheme", in Electric Power Systems Research, Vol. 195, 2021, ISSN 0378-7796. (impact factor: 3.9, JCR Q2)
- 31. Pengfei Zhao, Chenghong Gu, Zhidong Cao*, Da Xie, Fei Teng, Jianwei Li, Xinlei Chen, **Chenye Wu**, Dongmin Yu, Xu Xu, Shuangqi Li, "A Cyber-Secured Operation for Water-Energy Nexus", *in IEEE Transactions on Power Systems*, vol. 36, no. 4, pp. 3105-3117, July 2021. (impact factor: 6.6, JCR Q1)
- 32. Haoxiang Wang, Jiasheng Zhang, Chenbei Lu, and **Chenye Wu***, "Privacy Preserving in Non-Intrusive Load Monitoring: A Differential Privacy Perspective", *in IEEE Transactions on Smart Grid*, vol. 12, no. 3, pp. 2529-2543, May 2021. (impact factor: 9.6, JCR Q1)
- 33. Jiaman Wu, Zhiqi Wang, **Chenye Wu***, Kui Wang, Yang Yu, "A Data-driven Storage Control Framework for Dynamic Pricing," *in IEEE Transactions on Smart Grid*, vol. 12, no. 1, pp. 737-750, Jan. 2021. (impact factor: 9.6, JCR Q1)
- 34. Jian Sun, Nan Gu, **Chenye Wu***, "Strategic Bidding in Extended Locational Marginal Price Scheme", *IEEE Control Systems Letters*, Vol. 5, No. 1, pp. 19-24, Jan. 2021. (impact factor: 3.0)
- 35. Dileep Kalathi, **Chenye Wu**, Kameshwar Poolla*, Pravin Varaiya, "The Sharing Economy for Electricity Storage," *in IEEE Transactions on Smart Grid*, Vol. 10, No. 1, pp. 556-567, 2019, (impact factor 9.6, JCR Q1, ESI Highly Cited Paper)
- 36. Jianxiao Wang, Haiwang Zhong, **Chenye Wu**, Ershun Du, Qing Xia*, Chongqing Kang, "Incentivizing Distributed Energy Resource Aggregation in Energy and Capacity Markets: an Energy Sharing Scheme and Mechanism Design", *in Applied Energy*, No. 252, 2019. (impact factor: 11.2, JCR Q1)
- 37. **Chenye Wu***, Gabriela Hug, Soummya Kar, "Smart Inverter for Voltage Regulation: Physical and Market Implementation", in *IEEE Transactions on Power Systems*, Vol. 33, No. 5, pp. 6181-6192, 2018. (impact factor: 6.6, JCR Q1)
- 38. Qixin Chen, Peng Zou, **Chenye Wu**, Junliu Zhang, Ming Li, Qing Xia*, Chongqing Kang, "A Nash-Cournot Approach to Assessing Flexible Ramping Products," *in Applied Energy*, No. 206, pp. 42-50, 2017. (impact factor: 11.2, JCR Q1)

- 39. **Chenye Wu***, Gabriela Hug, Soummya Kar, "Risk-limiting Economic Dispatch for Electricity Markets with Flexible Ramping Products," *in IEEE Transactions on Power Systems*, Vol. 31, No. 3, pp. 1990-2003, 2016. (impact factor: 6.6, JCR Q1)
- 40. Gabriela Hug*, Soummya Kar, **Chenye Wu**, "Consensus + Innovations Approach for Distributed Multi-Agent Coordination in a Microgird," *in IEEE Transactions on Smart Grid*, Vol. 6, No. 4, pp. 1893-1903, 2015. (impact factor: 9.6, JCR Q1, ESI Highly Cited Paper)
- 41. Subhonmesh Bose, **Chenye Wu**, Yunjian Xu, Adam Wierman*, Hamed Mohsenian-Rad, "A Unifying Market Power Measure for Deregulated Transmission-Constrained Electricity Markets," *in IEEE Transactions on Power Systems*, Vol. 30, No. 5, pp. 2338-2438, 2015. (impact factor: 6.6, JCR Q1)
- 42. **Chenye Wu***, Yiyu Shi, Soummya Kar, "Exploring the Demand Flexibility in Heterogenous Aggregators: An LMP-based Pricing Scheme," in ACM Transactions on Embedded Computing Systems, Vol. 13, No. 2s, Jan, 2014. (impact factor: 2.0, JCR Q3)
- 43. Yongcai Wang*, Lei Song, Xiaohong Hao, **Chenye Wu**, Yuexuan Wang, Changjian Hu, Lu Yu, "Compressive Tracking The States of Massive Appliances In The Power Load Networks", in ACM Transactions on Embedded Computing Systems, Vol. 13, No. 2s, Jan, 2014. (impact factor: 2.0, JCR Q3)
- 44. **Chenye Wu**, Hamed Mohsenian-Rad, Jianwei Huang*, "Communication Requirements to Provide Ancillary Services in Vehicle-to-Grid Power System," *book chapter in Smart Grid Communications and Networking*, Cambridge University Press, 2012.
- 45. Ajay Kumar*, **Chenye Wu**, "Automated Human Identification Using Ear Imaging," in Pattern Recognition, Vol. 41, No. 5, pp. 956-968, Mar. 2012. (impact factor: 8.0, JCR Q1)
- 46. Chenye Wu, Hamed Mohsenian-Rad, Jianwei Huang*, "Vehicle-to-Aggregator Interaction Game," in IEEE Transactions on Smart Grid, Vol. 3, No. 1, pp. 434-442, Mar. 2012, (impact factor: 9.6, JCR Q1, ESI Highly Cited Paper)

Conference Proceedings

- 1. Jian Sun, Yaoyu Zhang and **Chenye Wu***, "Effective Risk-Limiting Carbon Emission Aware Economic Dispatch: An Algorithmic Perspective," *In Proceedings of the 14th ACM International Conference on Future Energy Systems* (e-Energy '23), Orlando, FL, USA, 2023.
- 2. Yaoyu Zhang, Yuhan Kang, **Chenye Wu***, Jian Shi, Dan Wang and Zhu Han, "Carbon Emission-Aware Storage Control via Mean Field Game Coordination," *In Proceedings of IEEE CDC 2022*, Cancun, Mexico, 2022.
- 3. Gaoyang Mou, Jiaqi Huang and **Chenye Wu***, "Are Consumers with Low Serving Costs Necessarily Carbon Friendly?," *In Proceedings of IEEE iSPEC 2022*, Perth, Australia, 2022.
- 4. Haojun Wang, Wenqian Jiang and **Chenye Wu***, "Is eLMP Harder to Predict than LMP?," *In Proceedings of IEEE iSPEC 2022*, Perth, Australia, 2022.
- 5. Daxin Huang, **Chenye Wu** and N. Gu*, "To Switch or Not to Switch? Rate Plan Selection in the Electricity Retail Market," *In Proceedings of IEEE iSPEC 2022*, Perth, Australia, 2022.
- 6. Jianing Yi, **Chenye Wu** and Jiasheng Zhang*, "A Data-Driven Vulnerability Analysis of Electricity Markets Under International Tension," *In Proceedings of IEEE iSPEC 2022*, Perth, Australia, 2022.

- 7. Jiaqi Huang and **Chenye Wu***, "Privacy Leakage in GAN Enabled Load Profile Synthesis," *In Proceedings of IEEE iSPEC 2022*, Perth, Australia, 2022.
- 8. Xuanrui Chen, **Chenye Wu** and Wenqian Jiang*, "Load Prediction under Accelerated Urbanization," *In Proceedings of 7th IEEE Workshop on the Electronic Grid (eGRID)*, Auckland, New Zealand, 2022.
- 9. Junni Su, Fengchao Chen, Xin Zhang, Yipeng He, Haojun Wang* and **Chenye Wu**, "Economic Risk Analysis for the Power System: From a Quality of Service Perspective," *In Proceedings of 7th IEEE Workshop on the Electronic Grid (eGRID)*, Auckland, New Zealand, 2022.
- 10. Tong Cai, Chenye Wu and Jiasheng Zhang*, "A Bagging Long Short-term Memory Network for Financial Transmission Rights Forecasting," *In Proceedings of 7th IEEE Workshop on the Electronic Grid (eGRID)*, Auckland, New Zealand, 2022.
- 11. Yiyang Zhang, **Chenye Wu** and Chenbei Lu*, "Risk-Limiting Multi-Station EV Charging Scheduling with Imperfect Prediction," *In Proceedings of 7th IEEE Workshop on the Electronic Grid (eGRID)*, Auckland, New Zealand, 2022.
- 12. Gaoyuan Xu, Jian Shi, Wenqian Jiang, **Chenye Wu***, Dan Wang and Zhu Han, "A Two-Stage Emission Mismatch Penalty Game to Facilitate Carbon and Electricity Market Interaction," *In Proceedings of IEEE 6th Conference on Energy Internet and Energy System Integration (EI2)*, Chengdu, China, 2022.
- 13. Yuxin Lu, Chenye Wu and Jiasheng Zhang*, "Virtual Bidding in a Two-Settlement Electricity Market with Asymmetric Information," *In Proceedings of IEEE 6th Conference on Energy Internet and Energy System Integration (EI2)*, Chengdu, China, 2022.
- 14. Yuxuan Liu, Xinyu Liu, Fanhan Man, **Chenye Wu** and Xinlei Chen*, "Fine-Grained Air Pollution Data Enables Smart Living and Efficient Management", *In Proceedings of the 20th ACM Conference on Embedded Networked Sensor Systems*, Boston, Massachusetts, USA, 2022
- 15. Haoyang Wang, Xuecheng Chen, Yuhan Cheng, **Chenye Wu**, Fan Dang and Xinlei Chen*, "H-SwarmLoc: Efficient Scheduling for Localization of Heterogeneous MAV Swarm with Deep Reinforcement Learning", *In Proceedings of the 20th ACM Conference on Embedded Networked Sensor Systems*, Boston, Massachusetts, USA, 2022
- 16. Hengxi Zhang*, Huaze Tang, Yuanquan Hu, Xiaoli Wei, **Chenye Wu**, Wenbo Ding and Xiao-Ping Zhang, "Heterogeneous Mean-Field Multi-Agent Reinforcement Learning for Communication Routing Selection in SAGI-Net", *In Proceedings of IEEE 96th Vehicular Technology Conference (VTC2022-Fall)*, London, United Kingdom, 2022.
- 17. Zuxin Li, Fanhang Man, Xuecheng Chen, Baining Zhao, **Chenye Wu** and Xinlei Chen*, "TRACT: Towards Large-Scale Crowdsensing With High-Efficiency Swarm Path Planning", *In Adjunct Proceedings of the 2022 ACM International Joint Conference on Pervasive and Ubiquitous Computing and the 2022 ACM International Symposium on Wearable Computers*, Cambridge, United Kingdom, 2022.
- 18. Xuecheng, Chen, Haoyang, Wang, Zuxin Li, Wenbo, Ding, Fan Dang, **Chenye Wu** and Xinlei Chen*, "DeliverSense: Efficient Delivery Drone Scheduling for Crowdsensing with Deep Reinforcement Learning", *In Adjunct Proceedings of the 2022 ACM International Joint Conference on Pervasive and Ubiquitous Computing and the 2022 ACM International Symposium on Wearable Computers*, Cambridge, United Kingdom, 2022.
- 19. Wenqian Jiang, **Chenye Wu***, "LMP Prediction with Incomplete Information", *In Proceedings of IEEE PES General Meeting* 2022, Denver, CO, USA, 2022.

- 20. Haoxiang Wang, **Chenye Wu***, "Optimal Green Certificate Auction Design Embedding Economic Dispatch", *In Proceedings of the Thirteenth ACM International Conference on Future Energy Systems (e-Energy '22)*, Virtual Event, 2022.
- 21. Jinhao Liang, Wenqian Jiang, **Chenye Wu***, "Effective Carbon Tax Learning via Cap and Trade", *In Proceedings of IEEE 5th International Electrical and Energy Conference*, Nangjing, China, 2022.
- 22. Songpeng Cao, **Chenye Wu***, "Learning the Marginal Fuel Type for Effective Carbon Reduction", *In Proceedings of IEEE 5th International Electrical and Energy Conference*, Nangjing, China, 2022.
- 23. Qiushi Huang, **Chenye Wu***, "Boosting False Data Injection Attack Detection with Structural Knowledge", *In Proceedings of American Control Conference* 2022, Atlanta, GA, USA, 2022.
- 24. Qiyuan Wang, Zhihui Chen, **Chenye Wu***, "Clustering Enabled Few-Shot Load Forecasting", *In Proceedings of IEEE iSPEC 2021*, Nanjing, China, Dec. 2021.
- 25. Chenbei Lu, Zhiqi Wang, **Chenye Wu***, "On the Service Surcharge Design for EV Charging Stations", *In Proceedings of IEEE CDC 2021*, Austin, Texas, Dec. 2021.
- 26. Chenbei Lu, Jiaman Wu, **Chenye Wu***, Yongli Qin, Qun Li and Nan Ma, "Efficiency or Fairness? Carpooling Design for Online Ride-hailing Platform", *In Proceedings of ACM SigSpatial 2021 as a Full Paper*, Beijing, China, Nov. 2021.
- 27. Jingshi Cui, Nan Gu, **Chenye Wu***, "Quantity or Quality? Data Enabled Online Energy Dispatch", *In Adjunct Proceedings of UbiComp* 2021, CDP Workshop, Virtual Event, Sept. 2021.
- 28. Jiaman Wu, Chenbei Lu, **Chenye Wu***, Yongli Qin, Qun Li, Nan Ma, Jun Fang, "Mobility Data-driven Complete Dispatch Framework for the Ride-hailing Platform", *In Adjunct Proceedings of UbiComp 2021, CDP Workshop*, Virtual Event, Sept. 2021.
- 29. Haoxiang Wang, Xun Luo, **Chenye Wu***, "Differential Privacy in Consumer Behavior Analysis", *In Proceedings of IEEE PES General Meeting* 2021, Washington, DC, July 2021.
- 30. Jian Sun, **Chenye Wu***, "Temporal Vulnerability Assessment for Convex Hull Pricing", *In Proceedings of the Twelfth ACM International Conference on Future Energy Systems (e-Energy '21)*, Torino, Italy, June 2021.
- 31. Bin Liu, Danyu Li, Yongfeng Cheng, Songpeng Cao*, Qiushi Huang, **Chenye Wu**, "Online Predictor Design for Conductor Galloping", *In Proceedings of the 5th International Conference on Smart Grid and Smart Cities*, Tokyo, Japan, June 2021.
- 32. Jiasheng Zhang, Nan Gu, **Chenye Wu***, "On the Tension between Flexibility and Market Power in the Electricity Market", *In Proceedings of the 5th International Conference on Smart Grid and Smart Cities*, Tokyo, Japan, June 2021.
- 33. Jingshi Cui, **Chenye Wu***, "Robust Long-term Rate Design via Matrix Completion", *In Proceedings of the 5th International Conference on Smart Grid and Smart Cities*, Tokyo, Japan, June 2021.
- 34. Guangyu Jiang, Jingshi Cui, **Chenye Wu***, "Role of Prediction in Data-driven Pricing Schemes", *In Proceedings of the 5th International Conference on Smart Grid and Smart Cities*, Tokyo, Japan, June 2021.
- 35. Bin Liu, Danyu Li, Yongfeng Cheng, Qiushi Huang*, Songpeng Cao, **Chenye Wu**, "Streaming Data Oriented Galloping Prediction", *In Proceedings of the 5th International Conference on Smart Grid and Smart Cities*, Tokyo, Japan, June 2021.

- 36. Mingkuan Xu, Yang Yu, **Chenye Wu***, "Rule Designs for Optimal Online Game Matchmaking", *In Proceedings of the 40th Chinese Control Conference*, Shanghai, China, July 2021.
- 37. Jian Sun, **Chenye Wu***, Yongfeng Cheng, Bin Liu, Danyu Li, "Explainable AI Enabled Conductor Galloping Predictor Design", *In Proceedings of IEEE ISGT NA 2021*, Washington D.C. USA.
- 38. Jingshi Cui, Haoxiang Wang, **Chenye Wu***, Yang Yu, "Robust Data-driven Profile-based Pricing Schemes", *In Proceedings of IEEE ISGT NA 2021*, Washington D.C. USA.
- 39. Jingshi Cui, **Chenye Wu***, "On the Consumer Behavior Management in Tier Price", *In Proceedings of IEEE ISGT NA 2021*, Washington D.C. USA.
- 40. Jiaman Wu, **Chenye Wu**, "On the Double Auction Mechanism Design for Electricity Market", *In Proceedings of IEEE SmartGridComm* 2020, Phoenix, Arizona, USA.
- 41. Jiasheng Zhang, Nan Gu, **Chenye Wu**, "Energy Storage as Public Asset", *In Proceedings of the Eleventh ACM International Conference on Future Energy Systems (e-Energy '20)*, Association for Computing Machinery, New York, NY, USA, 374-385.
- 42. Jianman Wu, Zhiqi Wang, Yang Yu, **Chenye Wu**, "Optimal Storage Control for Dynamic Pricing", *In Proceedings* of the Eleventh ACM International Conference on Future Energy Systems (e-Energy '20), Association for Computing Machinery, New York, NY, USA. (Poster)
- 43. Jian Sun, Nan Gu, Chenye Wu, "Market Power in Convex Hull Pricing", In Proceedings of the Eleventh ACM International Conference on Future Energy Systems (e-Energy '20), Association for Computing Machinery, New York, NY, USA. (Poster)
- 44. Haoxiang Wang, **Chenye Wu**, "Understanding Differential Privacy in Non-Intrusive Load Monitoring", *In Proceedings of the Eleventh ACM International Conference on Future Energy Systems (e-Energy '20)*, Association for Computing Machinery, New York, NY, USA. (Poster)
- 45. Jiasheng Zhang, Nan Gu, Yang Yu, **Chenye Wu**, "Value of Storage for Renewable Portfolio Standard", *In Proceedings of IEEE PES General Meeting* 2020, Virtual Conference, Montreal, Quebec, Canada.
- 46. Jian Sun, Yaoyu Zhang, Yang Yu, **Chenye Wu**, "Storage Control for Carbon Emission Reduction: Opportunities and Challenges", *In Proceedings of IEEE PES General Meeting* 2020, Virtual Conference, Montreal, Quebec, Canada.
- 47. Kui Wang, Jian Sun, **Chenye Wu**, Yang Yu, "Conductor Galloping Prediction on Imbalanced Datasets: SVM with Smart Sampling", *In Proceedings of IEEE PES General Meeting* 2020, Virtual Conference, Montreal, Quebec, Canada, Best Paper Award Winner.
- 48. Jingshi Cui, Haoxiang Wang, **Chenye Wu**, Yang Yu, "Vulnerable Analysis for Data Driven Pricing Schemes", *In Proceedings of IEEE PES General Meeting* 2020, Virtual Conference, Montreal, Quebec, Canada.
- 49. Zhiqi Wang, Kui Wang, Yang Yu, **Chenye Wu**, "An Algorithmic View on Optimal Storage Sizing," *In Proceedings of IEEE ISGT*, Washington D.C., Feb. 2020.
- 50. **Chenye Wu**, Yang Yu, "Optimal Control for Electricity Storage Against Three-tier ToU Pricing", *In Proceedings of IEEE APSIPA*, Hawaii, Nov. 2018.
- 51. Xingyu Gao, Kui Wang, **Chenye Wu**, "Who Should Pay for the Mileage Payment?", *In Proceedings of IEEE SmartGridComm*, Aalborg, Denmark, June, 2018.

- 52. **Chenye Wu**, Gabriela Hug, Soummya Kar, "Distributed Voltage Regulation in Distribution Power Grids: Utilizing the Photovoltaics Inverters", *In Proceedings of IEEE ACC 2017*, Settle, WA, May, 2017.
- 53. **Chenye Wu**, Dileep Kalathil, Kameshwar Poolla, Pravin Varaiya "Sharing Electricity Storage," *In Proceedings of IEEE CDC 2016*, Las Vegas, NV, Dec, 2016.
- 54. **Chenye Wu**, Wenyuan Tang, Kameshwar Poolla, Ram Rajagopal, "Predictability, Constancy and Contingency in Electric Load Profiles," *In Proceedings of IEEE SmartGridComm* 2016, Sydney, Australia, Nov, 2016.
- 55. **Chenye Wu**, Jared Porter, Kameshwar Poolla, "Community Storage for Firming," *In Proceedings of IEEE Smart-GridComm* 2016, Sydney, Australia, Nov, 2016.
- 56. **Chenye Wu**, Soummya Kar, Gabriela Hug, "Enhanced Secondary Frequency Control via Distributed Peer-to-Peer Communication," *In Proceedings of European Control Conference 2016*, Aalborg, Denmark, Jun, 2016.
- 57. **Chenye Wu**, Gabriela Hug, Soummya Kar, "A Functional Approach to Assessing Flexible Ramping Product's Impact on Electricity Market", *In Proceedings of IEEE PES-ISGT 2015*.
- 58. **Chenye Wu**, Hossein Akhavan-Hejazi, Hamed Mohsenian-Rad, Jianwei Huang, "PEV-based P-Q Control in Line Distribution Networks with High Requirement for Reactive Power Compensation", *In Proceedings of IEEE ISGT 2014*, 19-22 Feb. 2014, Washington DC, USA.
- 59. **Chenye Wu**, Subhomensh Bose, Adam Wierman, Hamed Mohsenian-Rad, "A Unifying Approach to Assessing Market Power in Deregulated Electricity Markets," *In Proceedings of IEEE PES General Meeting 2013*, Vancouver, BC, Canada, Jul. 2013, Best of Best Paper Award Winner.
- 60. **Chenye Wu**, Soummya Kar, "LMP-based Real Time Pricing for Optimal Capacity Planning with Maximal Wind Power Integration," *In Proceedings of IEEE SmartGridComm* '12, pp. 67-72, Tainan, Taiwan, Nov. 2012.
- 61. **Chenye Wu**, Hamed Mohsenian-Rad, Jianwei Huang, "PEV-based Reactive Power Compensation for Wind DG Units: A Stackelberg Game Approach," *In Proceedings of IEEE SmartGridComm* '12, pp. 504-509, Tainan, Taiwan, Nov. 2012, Best Paper Award Winner.
- 62. Xiaohong Hao, Yongcai Wang, **Chenye Wu**, et al., "Smart Meter Deployment for Efficient Appliance State Monitoring," *In Proceedings of IEEE SmartGridComm* '12, pp. 25-30, Tainan, Taiwan, Nov. 2012.
- 63. Yongcai Wang, Xiaohong Hao, Lei Song, **Chenye Wu**, et al. "Tracking States of Massive Electrical Appliances by Lightweight Metering and Sequence Decoding," *In Proceedings of SensorKDD '12*, pp. 34-42, Beijing, China, Aug. 2012.
- 64. Zhihao Li, **Chenye Wu**, Jiong Chen, *et al.* "Power Distribution Network Reconfiguration for Bounded Transient Power Loss," *In Proceedings of IEEE PES ISGT Asia 2012*, May 21-24, 2012, Tianjin, China.
- 65. **Chenye Wu**, Hamed Mohsenian-Rad, Jianwei Huang, *et al.* "PEV-Based Combined Frequency and Voltage Regulation for Smart Grid," *In Proceedings of IEEE ISGT 2012*, Washington DC, USA, Jan. 2012.
- 66. Chenye Wu, Hamed Mohsenian-Rad, Jianwei Huang, "Wind Power Integration via Aggregator-Consumer Coordination: A Game Theoretic Approach," *In Proceedings of IEEE ISGT 2012*, Washington DC, USA, Jan. 2012.
- 67. **Chenye Wu**, Hamed Mohsenian-Rad, Jianwei Huang, *et al.* "Demand Side Management for Wind Power Integration in Microgrid Using Dynamic Potential Game Theory," *In Proceedings of IEEE GLOBECOM 2011 Workshop on SG-COMNETS*, pp. 1199-1204, Houston, Texas, USA, Dec. 2011.

68. Siyu Yue, Jiong Chen, Yuantao Gu, **Chenye Wu**, Yiyu Shi, "Dual-pricing Policy for Controller-side Strategies in Demand Side Management," *In Proceedings of IEEE SmartGridComm '11*, pp. 357-362, Brussels, Belgium, Oct. 2011.

Newsletter Articles

1. Subhonmesh Bose, **Chenye Wu**, Hamed Mohsenian-Rad, Adam Wierman, "Assessing Market Power in Deregulated Electricity Markets", *IEEE Smart Grid Newsletter*, Jan. 2014.

Fund Raising

- Principle Investigator, Shenzhen Science and Technology Innovation Commission (excellent young researcher),
 RMB 2,000,000, 2023-2026
- Principle Investigator, National Natural Science Foundation of China (general program), RMB 460,000, 2023-2026
- Principle Investigator, Shenzhen Science and Technology Innovation Commission (general program), RMB 300,000, 2022-2025
- Principle Investigator, CCF-Tencent Rhino-Bird Young Faculty Research Fund, RMB 150,000, 2022-2023
- Principle Investigator, CCF-Tencent Rhino-Bird Young Faculty Research Fund, RMB 50,000, 2021-2022
- Principle Investigator, CCF-Didi Gaia Collaborative Research Funds for Yong Scholars, RMB 250,000, 2020-2021
- Principle Investigator, Dongguan Power Supply Bureau, RMB 1,635,900, 2021-2023
- Principle Investigator, China Electric Power Research Institute, RMB 247,500, 2022-2022

Professional Services

Associate Editor for:

IEEE Systems Journal

Guest Editor for:

Electric Power Systems Research

for Special Issue 'Power Systems Computation Conference 2022'

Applied Computational Intelligence and Soft Computing

for Special Issue 'Computational Intelligence and Soft Computing in Active Electrical Distribution Network'

Organizational Committee:

Digital Conference co-Chair for ACM Future Energy Systems (e-Energy) 2022

Symposium co-Chair for IEEE Smart Grid Communications Conference (SmartGridComm) 2022

TPC Member for:

Power Systems Computation Conference (PSCC) since 2022

ACM Future Energy Systems (e-Energy) since 2017

IEEE Smart Grid Communications Conference (SmartGridComm) since 2014

IEEE International Conference on Cloud Networking (CloudNet) since 2014

IEEE Vehicular Technology Conference (VTC) since 2014

Reviewer for:

IEEE Transactions on Power Systems

IEEE Transactions on Smart Grid

European Journal of Operational Research

IEEE Transactions on Sustainable Energy

IEEE Transactions on Industrial Informatics

IEEE Transactions on Automatic Control

IEEE Transactions on Network Science and Engineering

Cell iScience

Journal on Selected Topics in Signal Processing

IEEE Transactions on Dependable and Secure Computing

IEEE International Conference on Computer Communications (Infocom)

IEEE PES Conference on Innovative Smart Grid Technologies (ISGT)

IEEE Global Communications Conference (Globecom)

IEEE PES General Meeting (PESGM)

IEEE American Control Conference (ACC)

IEEE Conference on Decision and Control (CDC)

International Computing and Combinatorics Conference (COCOON)

IEEE Vehicular Technology Conference (VTC)

IEEE Vehicle Power and Propulsion Conference (VPPC)

International Conference on Network Games Control and Optimization (NetGCoop)