

# Pengcheng You

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🌐 <https://pengcheng-you.github.io/desires-lab/>  
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## EDUCATION

### Ph.D., Control Science and Engineering

Zhejiang University, Hangzhou, China

Sep. 2013 - Jun. 2018

### B.S. with honors, Electrical Engineering

Zhejiang University, Hangzhou, China

Sep. 2009 - Jun. 2013

## PRIMARY APPOINTMENTS

### Assistant Professor, National Engineering Laboratory for Big Data Analysis and Applications

Peking University, Beijing, China

Dec. 2022 - Present

### Assistant Professor, Dept. of Industrial Engineering and Management

Peking University, Beijing, China

Feb. 2022 - Present

### Lecturer, Engineering for Professionals Program

Johns Hopkins University, Baltimore, MD, US

Aug. 2021 - Dec. 2021

### Postdoctoral Fellow, Depts. of Mechanical Engineering/Electrical and Computer Engineering

Johns Hopkins University, Baltimore, MD, US

Oct. 2018 - Dec. 2021

### Research Intern, Data Sciences and Analytics Group

Pacific Northwest National Laboratory, Richland, WA, US

Oct. 2017 - Jan. 2018

### Visiting Graduate Student, Dept. of Computing and Mathematical Sciences

California Institute of Technology, Pasadena, CA, US

Oct. 2016 - Oct. 2017

## AWARDS

- Overseas Talent, China National Administrative Committee of Post-doctoral Researchers 2024
- Startrack Scholar, Microsoft Research Asia 2023
- ACM e-Energy Student Travel Grant (10 awardees) 2018
- Sifang Scholarship, Zhejiang University 2017, 2016
- Outstanding Graduate Student, Zhejiang University 2017, 2016, 2015
- Chu Kochen Honors Bachelor Degree, Zhejiang University (~5% of graduates) 2013
- Excellent Student Scholarship, Chu Kochen Honors College, Zhejiang University 2012, 2010

### Students' awards.....

- Caltech Summer Undergraduate Research Fellowship (SURF) - Chengrui Qu 2024
- National Scholarship - Chengrui Qu 2023
- Dean's First-Class Scholarship - Kekun Gao 2023
- NSFC 1st Youth Student Basic Research Grant - Chengrui Qu 2023

## TEACHING

### Instructor.....

- Foundations of Reinforcement Learning Peking University, Spring 2024

- Probability and Statistics
- Advanced Operations Research
- Foundations of Reinforcement Learning
- Foundations of Reinforcement Learning

Peking University, Fall 2023  
Peking University, Spring 2023  
Peking University, Fall 2022  
Johns Hopkins University, Fall 2021

#### Teaching assistant.....

- Energy System Analysis
- Analytical Methods for Network Congestion Control
- Power Systems Analysis
- Linear Systems Analysis

Johns Hopkins University, Spring 2021  
Zhejiang University, Summer 2016  
Zhejiang University, Summer 2015  
Zhejiang University, Fall 2013

## PROJECTS

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#### Grants awarded.....

1. **Overseas Talent Program:** Enabling Integration of Distributed Energy Resources via Redesign of Power Grid Information and Management Architecture, 2024-2026
2. **State Grid Research Project:** Trustworthy AI for Power System Dispatch, 2024-2025
3. **Ali Cloud & Damo Academy Research Project:** Carbon Emission Constrained Optimization for Multi-Scale Economic Operation and Electricity Trading Strategy of Data Centers, 2023-2024
4. **166 Research Project:** *Machine Learning Enabled Algorithms for Complex Strategic Resource Scheduling*, 2022-2024
5. **Huawei Cloud Research Project:** *Modeling, Simulation, Evaluation, and Causal Analysis of Resource Management Platform for Huawei Public Cloud IaaS Service*, 2022-2023
6. **NSFC (72201007):** *Digital Twin Driven Management for Electric Vehicle Charging: Evaluation and Realization of Its Economic Values*, 2023-2025
7. **PKU Emerging Engineering Interdisciplinary Project:** *Incentive Analysis for Coupled Participation in Electricity and Carbon Markets*, 2022
8. **PKU College of Engineering Startup Fund:** *Data-Driven Modeling, Analysis and Design for Electricity Markets*, 2022-2024

#### Grants as main contributor.....

1. **NSF CPS Medium (2136324):** *Enabling DER Integration via Redesign of Information Flows*, 2021-2024
2. **NSFC (61973163):** *Countermeasures for Deception Attack on Networked Control Systems*, 2020-2023
3. **JHU Discovery Award:** *A Data-Driven Approach to Electricity Market Design*, 2019-2021
4. **NSF (1711188):** *An Optimization Decomposition Framework for Principled Multi-Timescale Market Design and Co-Optimization*, 2017-2020
5. **DOE (DE-EE0008006):** *Robust and resilient coordination of feeders with uncertain distributed energy resources: from real-time control to long-term planning*, 2017-2020

## FULL PUBLICATIONS

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(Underlined include students or postdocs advised.)

#### Preprints.....

1. P. You, M. A. Fernandez, D. F. Gayme, and E. Mallda. **The Role of Strategic Participants in Two-Stage Settlement Electricity Markets.**
2. P. You, Y. Jiang, E. Yeung, D. F. Gayme, and E. Mallada. **On the Stability, Economic Efficiency and Incentive Compatibility of Electricity Market Dynamics.**

## Book chapters.....

1. P. You. **Scheduling of EV Battery Swapping in Microgrid**. Book chapter in *Distributed Control Methods and Cyber Security Issues in Microgrids* (Editors: X. Wang, W. Meng, S. Liu; ISBN: 978-0-12-816946-9), pp. 203-241, Elsevier Academic Press, 2020

## Journals.....

1. T. Zheng, N. Loizou, P. You, and E. Mallada. **Dissipative Gradient Descent Ascent Method: A Control Theory Inspired Algorithm for Min-max Optimization**. *IEEE Control Systems Letters (L-CSS)*, accepted
2. L. Mo, X. Li, A. Kritikakou, and P. You. **Optimal IC Task Mapping to Maximize QoS on Heterogeneous Multicore Systems**. *IEEE Transactions on Circuits and Systems II: Express Briefs*, accepted
3. R. Chen, Z. Liang, J. Cheng, P. You, and Z. Yang. **Multi-Agent Cooperative Motion Planning based on Alternating Direction Method of Multipliers**. *IEEE Control Systems Letters*, accepted
4. R. K. Bansal, Y. Chen, P. You, and E. Mallada. **Market Power Mitigation in Two-stage Electricity Market with Supply Function and Quantity Bidding**. *IEEE Transactions on Energy Markets, Policy and Regulation*, accepted
5. R. K. Bansal, P. You, D. F. Gayme, and E. Mallada. **A Market Mechanism for Truthful Bidding with Energy Storage**. *Electric Power Systems Research*, vol. 211, 108284, Oct. 2022
6. R. Pates, A. Ferragut, E. Pivo, P. You, F. Paganini, and E. Mallada. **Respect the Unstable: Delays and Saturation in Contact Tracing for Disease Control**. *SIAM Journal on Control and Optimization*, vol. 60, no. 2, pp. S196-S220, Mar. 2022
7. J. Sun, S. Chen, P. You, Q. Yang, and Z. Yang. **Battery-Assisted Online Operation of Distributed Data Centers with Uncertain Workload and Electricity Prices**. *IEEE Transactions on Cloud Computing*, accepted
8. M. Almassalkhi, *et al.* **Hierarchical, Grid-Aware, and Economically Optimal Coordination of Distributed Energy Resources in Realistic Distribution Systems**. *Energies*, vol. 13, no. 23, 6399, Dec. 2020
9. H. Yang, P. You, and C. Shang. **Distributed Planning of Electricity and Natural Gas Networks and Energy Hubs**. *Applied Energy*, vol. 282, Part A, 116090, Jan. 2021
10. P. You, J. Z.F. Pang, and S. H. Low. **Online Station Assignment for Electric Vehicle Battery Swapping**. *IEEE Transactions on Intelligent Transportation Systems*, vol. 23, no. 4, pp. 3256-3267, Apr. 2022
11. L. Mo, P. You, X. Cao, and Y.-Q. Song. **Event-Driven Joint Mobile Actuators Scheduling and Control in Cyber-Physical Systems**. *IEEE Transactions on Industrial Informatics*, vol. 15, no. 11, pp. 5877-5891, Nov. 2019
12. Z. Yang, T. Guo, P. You, Y. Hou, and S. J. Qin. **Distributed Approach for Temporal-Spatial Charging Coordination of Plug-in Electric Taxi Fleet**. *IEEE Transactions on Industrial Informatics*, vol. 15, no. 6, pp. 3185-3195, Jun. 2019
13. Y. Zhang, P. You, and L. Cai. **Optimal Charging Scheduling by Pricing for EV Charging Station with Dual Charging Modes**. *IEEE Transactions on Intelligent Transportation Systems*, vol. 20, no. 9, pp. 3386-3396, Sep. 2019
14. P. You, S. H. Low, L. Zhang, R. Deng, G. B. Giannakis, Y. Sun, and Z. Yang. **Scheduling of EV Battery Swapping, II: Distributed Solutions**. *IEEE Transactions on Control of Network Systems*, vol. 5, no. 4, pp. 1920-1930, Dec. 2018
15. P. You, S. H. Low, W. Tushar, G. Geng, C. Yuen, Z. Yang, and Y. Sun. **Scheduling of EV Battery Swapping, I: Centralized Solution**. *IEEE Transactions on Control of Network Systems*, vol. 5, no. 4, pp. 1887-1897, Dec. 2018
16. Y. Zhou, D. K.Y. Yau, P. You, and P. Cheng. **Optimal-Cost Scheduling of Electrical Vehicle Charging under Uncertainty**. *IEEE Transactions on Smart Grid*, vol. 9, no. 5, pp. 4547-4554, Sep. 2018

17. H. Ma, Z. Yang, P. You, and M. Fei. **Multi-objective Biogeography-based Optimization for Dynamic Economic Emission Load Dispatch Considering Plug-in Electric Vehicles Charging.** *Energy*, vol. 135, pp. 101-111, Sep. 2017
18. P. You, Z. Yang, Y. Zhang, S. H. Low, and Y. Sun. **Optimal Charging Schedule for a Battery Switching Station Serving Electric Buses.** *IEEE Transactions on Power Systems*, vol. 31, no. 5, pp. 3473-3483, Sep. 2016
19. P. You, Z. Yang, M.-Y. Chow, and Y. Sun. **Optimal Cooperative Charging Strategy for a Smart Charging Station of Electric Vehicles.** *IEEE Transactions on Power Systems*, vol. 31, no. 4, pp. 2946-2956, Jul. 2016
20. Z. Yang, R. Wu, J. Yang, K. Long, and P. You. **Economical Operation of Microgrid with Various Devices via Distributed Optimization.** *IEEE Transactions on Smart Grid*, vol. 7, no. 2, pp. 857-867, Mar. 2016
21. Z. Yang, K. Long, P. You, and M.-Y. Chow. **Joint Scheduling of Large-Scale Appliances and Batteries via Distributed Mixed Optimization.** *IEEE Transactions on Power Systems*, vol. 30, no. 4, pp. 2031-2040, Jul. 2015

#### Conference proceedings.....

1. Y. Qiu, P. You, and Z. Zhao. **Reserve or Not? Ordering Emergency Supplies from an Opportunistic Supplier Facing Yield and Demand Uncertainties.** *INFORMS MSOM Conference, Twin Cities, US, 2024*
2. K. Gao, Y. Yan, Y. Liu, E. Liu, and P. You. **Online Electricity Purchase for Data Center with Dynamic Virtual Battery from Flexibility Aggregation.** *Youth Academic Annual Conference of Chinese Association of Automation (YAC), Dalian, China, 2024*
3. H. Zhao, Y. Yan, E. Liu, and P. You. **A Data-Driven Simulator for Flexible Electric Vehicle Charging: Framework, Model, and Algorithm.** *International Conference on Automation Science and Engineering (CASE), Auckland, New Zealand, 2023*
4. T. Zheng, P. You, and E. Mallada. **Constrained Reinforcement Learning via Dissipative Saddle Flow Dynamics.** *Asilomar Conference on Signals, Systems, and Computers*, Pacific Grove, US, 2022
5. R. K. Bansal, Y. Chen, P. You, and E. Mallada. **Intercept Bidding in Two-stage Settlement Electricity Markets.** *ACM e-Energy*, Virtual Event, 2022
6. R. K. Bansal, P. You, D. F. Gayme, and E. Mallada. **A Market Mechanism for Truthful Bidding with Energy Storage.** *Power Systems Computation Conference (PSCC)*, Porto, Portugal, 2022
7. K. Lin, B. Wang, and P. You. **Mechanism Design for Efficient Nash Equilibrium in Oligopolistic Markets.** *Hawaii International Conference on System Sciences (HICSS)*, Maui Island, US, 2022
8. P. You, and E. Mallada. **Saddle Flow Dynamics: Observable Certificates and Separable Regularization.** *American Control Conference (ACC)*, New Orleans, US, 2021
9. R. K. Bansal, P. You, D. F. Gayme, and E. Mallada. **Storage Degradation Aware Economic Dispatch.** *American Control Conference (ACC)*, New Orleans, US, 2021
10. P. You, D. F. Gayme, and E. Mallada. **The Role of Strategic Load Participants in Two-Stage Settlement Electricity Markets.** *IEEE Conference on Decision and Control (CDC)*, Nice, France, 2019
11. H. Fan, P. You, Z. Guo, S. Chen, and Z. Yang. **Online Pricing Mechanism for Electric Vehicles Charging Based on Operational Condition of A Charging Station.** *Chinese Control Conference (CCC)*, Guangzhou, China, 2019
12. H. Fan, S. Chen, Z. Guo, P. You, and Z. Yang. **Coordinated Scheduling Strategy of Charging Station Considering Cost and Efficiency.** *IEEE International Conference on Control & Automation (ICCA)*, Edinburgh, Scotland, 2019
13. P. You\*, J. Z.F. Pang\*, and E. Yeung\*. **Deep Koopman Controller Synthesis for Cyber-Resilient Market-Based Frequency Regulation** (\*all authors contributed equally). *IFAC Symposium on Control of Power and Energy Systems (CPES)*, Tokyo, Japan, 2018
14. P. You, J. Z.F. Pang, and E. Yeung. **Stabilization of Power Networks via Market Dynamics.** *ACM*

*e-Energy*, Karlsruhe, Germany, 2018

15. P. You, J. Z.F. Pang, S. H. Low, and P. Cheng. **Efficient Online Station Assignment for EV Battery Swapping** (poster abstract). *ACM e-Energy*, Karlsruhe, Germany, 2018
16. X. Liu, P. You, and Z. Yang. **Bilaterally Open Electricity Markets with High Penetration of Renewables**. *IEEE International Conference on Control & Automation (ICCA)*, Anchorage, US, 2018
17. Z. Yu, P. You, and Z. Yang. **Residential Load Reduction Scheduling with Optimal Power Flow and Segmented Incentives**. *IEEE PES General Meeting*, Portland, US, 2018
18. J. Z.F. Pang, P. You, and M. Chen. **The Role of Information in Temporally Networked Cournot Markets: Second Chance in Power Markets**. *Hawaii International Conference on System Sciences (HICSS)*, Hawaii, US, 2018
19. P. You, J. Z.F. Pang, M. Chen, S. H. Low, and Y. Sun. **Battery Swapping Assignment for Electric Vehicles: A Bipartite Matching Approach**. *IEEE Conference on Decision and Control (CDC)*, Melbourne, Australia, 2017
20. H. Ma, P. You, K. Liu, Z. Yang, and M. Fei. **Optimal Battery Charging Strategy Based on Complex System Optimization**. *International Conference on Intelligent Computing for Sustainable Energy and Environment (ICSEE)*, Nanjing, China, 2017
21. P. You, Y. Sun, J. Z.F. Pang, S. H. Low, and M. Chen. **Battery Swapping Assignment for Electric Vehicles: A Bipartite Matching Approach** (extended abstract). *Greenmetrics*, Urbana-Champaign, US, 2017
22. T. Guo, P. You, and Z. Yang. **Recommendation of Geo-Distributed Charging Stations for EVs: A Game Theoretical Approach**. *IEEE PES General Meeting*, Chicago, US, 2017
23. H. Ma, Z. Yang, P. You, and M. Fei. **Complex System Optimization for Economic Emission Load Dispatch**. *International Conference on Control*, Belfast, Northern Ireland, UK, 2016
24. E. Liu, P. You, and P. Cheng. **Optimal Privacy-Preserving Load Scheduling in Smart Grid**. *IEEE PES General Meeting*, Boston, US, 2016
25. P. You, S. H. Low, Z. Yang, Y. Zhang, and L. Fu. **Real-Time Recommendation Algorithm of Battery Swapping Stations for Electric Taxis**. *IEEE PES General Meeting*, Boston, US, 2016
26. L. Mo, P. You, X. Cao, Y.-Q. Song, and J. Chen. **Decentralized Multi-Charger Coordination for Wireless Rechargeable Sensor Networks**. *International Performance Computing and Communications Conference (IPCCC)*, Nanjing, China, 2015
27. P. You, Z. Yang, and Y. Zhang. **Efficient Battery Charging Schedule of Battery-Swapping Station for Electric Buses**. *European Control Conference (ECC)*, Linz, Austria, 2015
28. P. You, and Z. Yang. **Efficient Optimal Scheduling of Charging Station with Multiple Electric Vehicles via V2V**. *IEEE SmartGridComm*, Venice, Italy, 2014

## MENTORSHIP

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Advisor.....	
<b>Yixuan Yu</b> <i>Ph.D. student since 2024</i>	Peking University
<b>Yixuan Liu</b> <i>Ph.D. student since 2024</i>	Peking University
<b>Hengxing Zhao</b> <i>Ph.D. student since 2023</i>	Peking University
<b>Shufan Yu</b> <i>Master student since 2023</i>	Peking University
<b>Hanjiang Lin</b> <i>Master student since 2023</i>	Peking University

<b>Zijian Zhao</b> <i>Ph.D. student since 2022, co-advised with Yunzhe Qiu</i>	<b>Peking University</b>
<b>Yuke Zhou</b> <i>Ph.D. student since 2022, co-advised with Jie Song</i>	<b>Peking University</b>
<b>Yingzhu Liu</b> <i>Ph.D. student since 2022, co-advised with Zhongkui Li</i>	<b>Peking University</b>
<b>Huilan Xu</b> <i>Master student since 2022</i>	<b>Peking University</b>
<b>Kekun Gao</b> <i>Master student since 2022</i>	<b>Peking University</b>
<b>Co-mentor</b> .....	
<b>Rajni Kant Bansal</b> <i>Ph.D. 2023</i> Thesis: Efficiency and Market Power in Electricity Markets with Inelastic Demand, Energy Storage, and Hybrid Energy Resources	<b>Johns Hopkins University</b> <i>Next hop: Postdoc @UCSD</i>
<b>Xianglu Liu</b> <i>M.Sc. 2019</i> Thesis: Reformed Electricity Market with Deep Penetration of Renewables	<b>Zhejiang University</b> <i>Next hop: State Grid</i>
<b>Ziwen Yu</b> <i>M.Sc. 2018</i> Thesis: Experimental Testbed and Optimal Load Scheduling for Demand Response Management in Smart Grid	<b>Zhejiang University</b> <i>Next hop: Hikvision</i>
<b>Tianci Guo</b> <i>M.Sc. 2017</i> Thesis: Joint Temporal-Spatial Coordination of Charging Decision of Plug-in Electric Taxi Fleet	<b>Zhejiang University</b> <i>Next hop: Huawei</i>
<b>Host</b> .....	
<b>Endong Liu</b> <i>Visiting scholar since Aug. 2022</i>	<b>Heze College</b>
<b>Yixuan Wang</b> <i>Undergraduate since Jun. 2023</i>	<b>Peking University</b>
<b>Chengrui Qu</b> <i>Undergraduate since Mar. 2023</i>	<b>Peking University</b>
<b>Yi Yan</b> <i>Undergraduate since Sep. 2022</i>	<b>Peking University</b>
<b>Xiwen Huang</b> <i>Research assistant, Aug. 2022 - Jul. 2023</i>	<b>Peking University</b> <i>Next hop: Ph.D. student at Imperial College London</i>
<b>Hengxing Zhao</b> <i>Undergraduate, May 2022 - Jun. 2023</i>	<b>Peking University</b> <i>Next hop: Ph.D. student at Peking University</i>
<b>Fuyi Li</b> <i>Undergraduate, Jul. 2022 - Feb. 2023</i>	<b>Peking University</b> <i>Next hop: Ph.D. student at Peking University</i>
<b>Ruishuang Chen</b> <i>Visiting student, Aug. 2022 - Nov. 2022</i>	<b>Southern University of Science and Technology</b>

## ACADEMIC ACTIVITIES

<b>Community service</b> .....	
• Technical Committee	

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|---|----------------|
| 1. TC on Embodied AI, Chinese Association of Automation | 2024 - Present |
| 2. TC on Energy Systems, IEEE Control Systems Society   | 2023 - Present |

## Editorial board.....

- Guest editor
 

1. Frontiers in Energy Research	2022
<i>Special Issue on Transactive Energy</i>	

## Conference organization.....

- Session chair
 

1. Conference on Fully Actuated System Theory and Applications	May 2024
<i>Towards Next-Gen Power and Energy Systems</i>	
2. POMS International Conference in China	Jun. 2022
<i>Data-Driven Operations Management</i>	
3. SIAM Conference on Control and Its Applications	Jul. 2021
<i>Analysis and Control of Nonlinear Systems</i>	
4. Conference on Information Sciences and Systems	Mar. 2021
<i>Power System Control, Optimization and Economics I &amp; II</i>	
<i>Systems and Control</i>	
5. Conference on Information Sciences and Systems	Mar. 2019
<i>Security and Privacy</i>	
- TPC member
 

1. IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grids	Nov. 2023
2. IEEE Global Communications Conference	Dec. 2023
3. IEEE Global Communications Conference	Dec. 2022
4. IEEE International Conference on Communications, Control, and Computing Technologies for Smart Grids	Oct. 2022
5. IEEE Global Communications Conference	Dec. 2021
6. Conference on Information Sciences and Systems	Mar. 2021
7. International Workshop on Cyberspace Security	Dec. 2020

## Dissertation Committee.....

- Ruiyang Jin, Peking University Jun. 2024  
*Modeling and Optimization of Multi-Agent Systems on Demand Side in Power Systems*
- Jiayuan Wu, Peking University Jun. 2024  
*Structured Non-Convex Optimization Theory and Algorithms*
- Nan Gu, Tsinghua University May 2024  
*Effective Decision-Making for an Active Power Distribution Network: Uncertainty Management and Mechanism Design*
- Rajni K. Bansal, Johns Hopkins University Aug. 2023  
*Efficiency and Market Power in Electricity Markets with Inelastic Demand, Energy Storage, and Hybrid Energy Resources*
- Yongkang Ding, Peking University May 2023  
*Deep Reinforcement Learning-Based Optimization Control Method for Mobile Energy Storage Systems*
- Jiasheng Zhang, Tsinghua University May 2023  
*Empowerment Mechanism Design for Power System Flexibility in the Context of Carbon Neutrality*
- Jingshi Cui, Tsinghua University May 2023  
*Operation Framework Evolution Research for Electricity Balancing Market Based on Market Entity's Participating Modes*
- Fan Zhang, Peking University May 2022

**Peer review**.....

- Journal: Nature Communications, TAC, TCNS, TCST, TPS, TSG, TSE, TITS, TIE, TII, TPDS, TECS, Automatica, IEEE L-CSS, IEEE Systems Journal, IEEE Network, etc.
- Conference: ACC, CDC, PSCC, CISS, PESGM, SmartGridComm, Globecom, etc.

**Short visits**.....

- California Institute of Technology, Dept. of Computing and Mathematical Sciences, Pasadena, California, US, Jun. 2023
- University of California San Diego, Dept. of Electrical and Computer Engineering, San Diego, California, US, Jun. 2023
- Microsoft Research Asia, Machine Learning Group, Beijing, China, Apr. 2023 - Jul. 2023
- Southern University of Science and Technology, Dept. of Mechanical and Energy Engineering, Shenzhen, China, Jul. 2018 - Sep. 2018
- Chinese University of Hong Kong, Dept. of Information Engineering, Hong Kong, China, May 2018
- Chinese University of Hong Kong-Shenzhen, School of Science and Engineering, Shenzhen, China, Sep. 2016
- Singapore University of Technology and Design, Engineering Product Development Pillar, Singapore, Nov. 2015 - Feb. 2016

## TALKS

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**Conference and workshop presentations**.....

- "Mechanism Designs for Efficiency and Incentive Compatibility in Electricity Markets: Emerging Technology and Strategic Participation", Workshop on "Power and Energy Systems of the (near) Future", Institute of High Performance Computing, ASTAR, Singapore, Dec. 2023
- "Saddle Flow Dynamics: Convergence, Algorithms, and Application to Constrained Reinforcement Learning", Young Scholar Workshop, Department of Automation, Shanghai Jiao Tong University, Shanghai, China, Mar. 2023
- "Saddle Flow Dynamics: Convergence, Algorithms, and Applications", MSRA StarTrack Program Workshop, Microsoft Research Asia, Beijing, China, Nov. 2022
- "Saddle Flow Dynamics: Convergence, Algorithms, and Applications", PKU Workshop on Operations Research and Machine Learning, Peking University, Beijing, China, Nov. 2022
- "Bidding Mechanisms and Incentive Analysis for Temporally-Coupled Electricity Markets", INFORMS Annual Meeting, Anaheim, California, US, Oct. 2021
- "Saddle Flow Dynamics: Observable Certificates and Separable Regularization", SIAM Conference on Control and Its Applications (CT), Spokane, Washington, US, July 2021
- "Saddle Flow Dynamics: Observable Certificates and Separable Regularization", IEEE American Control Conference (ACC), New Orleans, Louisiana, US, May 2021
- "The Role of Strategic Participants in Two-stage Settlement Electricity Markets", INFORMS Annual Meeting, Washington D.C., US, Nov. 2020
- "On Stability and Economic Efficiency of Electricity Market Dynamics", INFORMS Annual Meeting, Washington D.C., US, Nov. 2020
- "The Role of Strategic Load Participants in Two-Stage Settlement Electricity Markets", IEEE Conference on Decision and Control (CDC), Nice, France, Dec. 2019
- "The Role of Strategic Load Participants in Two-Stage Settlement Electricity Markets", Trans-Atlantic Infraday Conference, Washington, D.C., US, Oct. 2019
- "Deep Koopman Controller Synthesis for Cyber-Resilient Market-Based Frequency Regulation" (E. Yeung presented), IFAC Symposium on Control of Power and Energy Systems (CPES), Tokyo,



Japan, Sep. 2018

- "Stabilization of Power Networks via Market Dynamics", ACM e-Energy, Karlsruhe, Germany, Jun. 2018
- "Online Station Assignment for EV Battery Swapping" (J. Z.F. Pang presented), IEEE Conference on Decision and Control (CDC), Melbourne, Australia, Dec. 2017
- "Online Station Assignment for EV Battery Swapping", Greenmetrics, Urbana-Champaign, Illinois, US, Jun. 2017
- "Optimal Charging Schedule for a Battery Switching Station Serving Electric Buses", IEEE PES General Meeting, Boston, Massachusetts, US, Jul. 2016
- "Joint Scheduling of Large-Scale Appliances and Batteries via Distributed Mixed Optimization", IEEE PES General Meeting, Denver, Colorado, US, Jul. 2015
- "Efficient Battery Charging Schedule of Battery-Swapping Station for Electric Buses", European Control Conference (ECC), Linz, Austria, Jul. 2015
- "Efficient Optimal Scheduling of Charging Station with Multiple Electric Vehicles via V2V", IEEE SmartGridComm, Venice, Italy, Nov. 2014

### Seminar presentations.....

- "Mechanism Designs for Efficiency and Incentive Compatibility in Electricity Markets: Emerging Technology and Strategic Participation", School of Science and Engineering, The Chinese University of Hong Kong - Shenzhen, Shenzhen, China, Jan. 2024
- "Saddle Flow Dynamics: Convergence, Algorithms, and Applications", School of Data Science, The Chinese University of Hong Kong - Shenzhen, Shenzhen, China, Jan. 2024
- "Mechanism Designs for Efficiency and Incentive Compatibility in Electricity Markets: Emerging Technology and Strategic Participation", School of System Design and Intelligent Manufacturing, Southern University of Science and Technology, Shenzhen, China, Jan. 2024
- "Mechanism Designs for Efficiency and Incentive Compatibility in Electricity Markets: Emerging Technology and Strategic Participation", College of Electrical Engineering, Zhejiang University, Hangzhou, China, Jan. 2024
- "Saddle Flow Dynamics: Convergence, Algorithms, and Applications", College of Control Science and Engineering, Zhejiang University, Hangzhou, China, Jan. 2024
- "Saddle Flow Dynamics: Convergence, Algorithms, and Applications", National Engineering Laboratory for Big Data Analysis and Applications, Peking University, Beijing, China, Jan. 2024
- "Exploiting Flexibility of Electric Vehicle Charging", Microsoft Research Asia, Beijing, China, Jul. 2023
- "Saddle Flow Dynamics: Convergence, Algorithms, and Application to Constrained Reinforcement Learning", Department of Computing and Mathematical Sciences, California Institute of Technology, Pasadena, California, US, Jun. 2023
- "Saddle Flow Dynamics: Convergence, Algorithms, and Application to Constrained Reinforcement Learning", Department of Automation, Tsinghua University, Beijing, China, Apr. 2023
- "Saddle Flow Dynamics: Convergence, Algorithms, and Application to Constrained Reinforcement Learning", AI Thrust, Hong Kong University of Science and Technology (Guangzhou), Guangzhou, China, Mar. 2023
- "Saddle Flow Dynamics: Convergence, Algorithms, and Application to Constrained Reinforcement Learning", Department of Mechanical and Energy Engineering, Southern University of Science and Technology, Shenzhen, China, Jan. 2023
- "Saddle Flow Dynamics: Convergence, Algorithms, and Application to Constrained Reinforcement Learning", School of Computer Engineering, Jiangsu Ocean University, Lianyungang, China, Dec. 2022
- "Incentive Analysis and Coordination Design for Multi-Timescale Markets", Energy Seminar, Department of Environmental Health and Engineering, Johns Hopkins University, Baltimore,

Maryland, US, Sep. 2021

- "Incentive Analysis and Coordination Design for Multi-Timescale Markets", Tsinghua-Berkeley Shenzhen Institute, Shenzhen, China, Jul. 2021
- "Incentive Analysis and Coordination Design for Multi-Timescale Markets", Department of Automation, Shanghai Jiao Tong University, Shanghai, China, May 2021
- "Incentive Analysis and Coordination Design for Multi-Timescale Markets", Department of Industrial Engineering and Management, Peking University, Beijing, China, May 2021
- "Incentive Analysis and Coordination Design for Multi-Timescale Markets", College of Smart Energy, Shanghai Jiao Tong University, Shanghai, China, Apr. 2021
- "Incentive Analysis and Coordination Design for Multi-Timescale Markets", Center for Future Networks, BNU-HKBU United International College, Zhuhai, China, Apr. 2021
- "On Stability and Economic Efficiency of Electricity Market Dynamics", International Forum of Excellent Young Talents in Engineering Sciences, Peking University, Beijing, China, Feb. 2021
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