

Kai Pan

CONTACT INFORMATION	M507a, 5/F, Li Ka Shing Tower Department of Logistics and Maritime Studies Faculty of Business The Hong Kong Polytechnic University, Hung Hom, Kowloon, Hong Kong	<i>Phone:</i> +852 2766 5545 <i>E-mail:</i> kai.pan@polyu.edu.hk <i>Website:</i> sites.google.com/view/kaipanuf
RESEARCH INTERESTS	Stochastic and Discrete Optimization, Robust and Data-Driven Optimization Electricity Market, Smart City Operations, Transportation, Marketing, Supply Chain Management	
EDUCATION	The University of Florida , Gainesville, Florida, USA Ph.D., Industrial and Systems Engineering, Aug. 2012 - Aug. 2016 <i>Advisor:</i> Prof. Yongpei Guan Zhejiang University , Hangzhou, Zhejiang, China B.S., Industrial Engineering, Aug. 2006 - Jul. 2010	
ACADEMIC EXPERIENCE	Assistant Professor in Operations Management Department of Logistics and Maritime Studies, The Hong Kong Polytechnic University	Aug. 2016 - Present
	Research Assistant Department of Mechanical Engineering, Zhejiang University	Aug. 2010 - Jul. 2012
PROFESSIONAL EXPERIENCE	Amazon Corporate LLC, Seattle, Washington, USA Research Scientist Intern	May 2015 - Aug. 2015
	• Optimization on supply chain and inventory planning.	
	GE Grid Solutions (formerly ALSTOM Grid), Redmond, Washington, USA Power System Engineer Intern	May 2014 - Aug. 2014
	• Optimization on power system operations (particularly power generation scheduling).	
JOURNAL PUBLICATIONS	<ol style="list-style-type: none">1. Meysam Cheramin[#], Jianqiang Cheng[*], Ruiwei Jiang, and Kai Pan[*] (2021). Computationally Efficient Approximations for Distributionally Robust Optimization under Moment and Wasserstein Ambiguity. <i>INFORMS Journal on Computing</i>, forthcoming.2. Peng Wang[#], Kai Pan, Zhenzhen Yan, and Yun Fong Lim (2021). Managing Stochastic Bucket Brigades on Discrete Work Stations. <i>Production and Operations Management</i>, forthcoming.3. Huaxiao Shen[#], Yanzhi Li, Youhua (Frank) Chen, and Kai Pan (2021). Integrated Ad Delivery Planning for Targeted Display Advertising. <i>Operations Research</i>, forthcoming.4. Jianqiu Huang[#], Kai Pan[*], and Yongpei Guan (2021). Multistage Stochastic Power Generation Scheduling Co-Optimizing Energy and Ancillary Services. <i>INFORMS Journal on Computing</i>, 33(1): 352-369. (co-first author)5. Jianqiu Huang[#], Kai Pan[*], and Yongpei Guan (2021). Cutting Planes for Security-Constrained Unit Commitment with Regulation Reserve. <i>IIE Transactions</i>, 53(4): 437-452. (co-first author)6. Abolhassan M. Fathabad[#], Jianqiang Cheng, Kai Pan, and Feng Qiu (2020). Data-driven Planning for Renewable Distributed Generation Integration. <i>IEEE Transactions on Power Systems</i>, 35(6): 4357-4368. (IF: 6.074)	

7. Xiangyong Li, Yi Ding[#], **Kai Pan**, Dapei Jiang, and Yash P. Aneja (2020). Single-path Service Network Design Problem with Resource Constraints. *Transportation Research Part E*, 140: 101945.
8. Ziliang Jin[#], **Kai Pan**, Lei Fan, and Tao Ding (2019). Data-Driven Look-Ahead Unit Commitment Considering Forbidden Zones and Dynamic Ramping Rates. *IEEE Transactions on Industrial Informatics*, 15(6): 3267-3276. (IF: 9.112)
9. Lei Fan, **Kai Pan**^{*}, and Yongpei Guan (2019). A Strengthened Mixed-Integer Linear Programming Formulation for Combined-Cycle Units. *European Journal of Operational Research*, 275 (3): 865-881.
10. Lingxiao Wu[#], **Kai Pan**^{*}, Shuaian Wang, and Dong Yang (2018). Bulk Ship Scheduling in Industrial Shipping with Stochastic Backhaul Canvassing Demand. *Transportation Research Part B*, 117: 117-136.
11. Yongpei Guan, **Kai Pan**^{*}, and Kezhao Zhou[#] (2018). Polynomial Time Algorithms and Extended Formulations for Unit Commitment Problems. *IIEE Transactions*, 50(8): 735-751. (IIEE Magazine feature article)
12. Dong Yang, **Kai Pan**^{*}, and Shuaian Wang (2018). On Service Network Improvement for Shipping Lines under the One Belt One Road Initiative of China. *Transportation Research Part E*, 117: 82-95.
13. Juan He, Chao Ma[#], and **Kai Pan** (2017). Capacity Investment in Supply Chain with Risk Averse Supplier under Risk Diversification Contract. *Transportation Research Part E*, 106: 255-275.
14. **Kai Pan**^{*} and Yongpei Guan (2017). DataDriven Risk-Averse Stochastic Self-Scheduling for the Combined-Cycle Units. *IEEE Transactions on Industrial Informatics*, 13(4): 3058-3069.
15. **Kai Pan** and Yongpei Guan (2016). Strong Formulations for Multistage Stochastic Self-Scheduling Unit Commitment. *Operations Research*, 64(6): 1482-1498.
16. **Kai Pan**, Yongpei Guan, Jean-Paul Watson, and Jianhui Wang (2016). Strengthened MILP Formulation for Certain Gas Turbine Unit Commitment Problems. *IEEE Transactions on Power Systems*, 31(2): 1440-1448.

[#]: student co-author; ^{*}: corresponding author.

CONFERENCE
PROCEEDINGS

1. Xiang Li, Tianyi Pan, Guangmo Tong, and **Kai Pan**. Adaptive Crawling with Cautious Users. In *2019 IEEE International Conference on Distributed Computing Systems (ICDCS 2019)* (Acceptance rate: 19.6%)

EXTERNAL
RESEARCH GRANTS

1. Hong Kong Research Grants Council (RGC) General Research Fund (GRF): "Data-Driven Resilience Design for Integrated Grid and Mobility Systems," PI, Grant No.: 15501221, Period: 2022 - 2024, Funding Amount: HKD 760,493.
2. Hong Kong RGC GRF: "Data-Driven Planning for Smart Vehicle-Grid Integration Systems," PI, Grant No.: 15501920, Period: 2021 - 2023, Funding Amount: HKD 677,500.
3. National Natural Science Foundation of China (NSFC): "Optimizing Electrical Power System Operations Considering Limited Supply and Uncertain Net Demand," PI, Grant No.: 72001185, Period: 2021 - 2023, Funding Amount: RMB 240,000.
4. Hong Kong RGC GRF: "Capacity Design for Electrified Shared-Mobility Systems," PI, Grant No.: 15501319, Period: 2020 - 2022, Funding Amount: HKD 488,500.
5. Hong Kong RGC GRF: "Strategic Operations Management in Bicycle-sharing Industry," PI, Grant No.: 15507718, Period: 2019 - 2021, Funding Amount: HKD 328,060.

PH.D. STUDENT
SUPERVISION

1. Shiyi Jiang, The Hong Kong Polytechnic University, ongoing, 2021 - Present (chief supervisor).
2. Bin Tian, The Hong Kong Polytechnic University, ongoing, 2021 - Present (chief supervisor).
3. Ziliang Jin, The Hong Kong Polytechnic University, ongoing, 2020 - Present (chief supervisor; Hong Kong PhD Fellowship Scheme awardee).
4. Ding Zou, The Hong Kong Polytechnic University, ongoing, 2017 - Present (co-supervisor; jointly supervised with Yulan Wang and Xiaomeng Guo).
5. Abolhassan M. Fathabad, The University of Arizona, ongoing, 2017 - Present (external co-supervisor; jointly supervised with Jianqiang Cheng).

TEACHING
EXPERIENCE

The Hong Kong Polytechnic University

1. LGT4017: Information Systems for Logistics Management, 2017 Spring, 2019 Spring, 2020 Spring, 2021 Spring
2. LGT5113: Enterprise Resource Planning, 2018 Spring, 2019 Spring, 2020 Spring
3. LGT4115: E-commerce and Logistics, 2019 Spring, 2020 Spring, 2021 Spring
4. LGT5152: Information Systems for Supply Chain Management, 2021 Spring

The University of Florida (as Teaching Assistant)

1. ESI 4357: Web-based Decision Support Systems, 2012 Fall, 2013 Spring & Summer
2. ESI 4356: Decision Support Systems, 2014 Fall
3. ESI 4523: Industrial Systems Simulation, 2015 Spring

HONORS AND
AWARDS

The Institute of Industrial and Systems Engineers (IISE) Pritsker Doctoral Dissertation Award, the first place winner, 2017

Hearn Graduate Research Award, University of Florida, 2016

Linda Parker Hudson Summer Fellowship, University of Florida, 2015

Outstanding Graduate with Honor, Zhejiang University, 2010

Outstanding Student, Zhejiang University, 2007-2010

Outstanding Bachelor's Thesis, Zhejiang University, 2010

Chinese National Scholarship, 2009

PROFESSIONAL
SERVICE

- *Reviewer*: Operations Research; Management Science; Manufacturing & Service Operations Management; Production and Operations Management; INFORMS Journal on Computing; IISE Transactions; European Journal of Operational Research; IEEE Transactions on Power Systems; IEEE Transactions on Sustainable Energy; IEEE Transactions on Smart Grid; Annals of Operations Research; Applied Energy; Energy Systems; International Journal of Production Economics; International Journal of Production Research; Omega; Service Science; Transportation Research Part E; etc.
- *Session Chair*: 2016 - 2021 INFORMS Annual Meeting; 2016 IISE Annual Conference; 2018 CSAMSE Annual Conference; 2019 POMS Annual Conference.
- *Program Committee Member*: 2019 - 2020 INFORMS Conference on Service Science.