Dawei Qiu

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Google Scholar Citation: 1060, h-index = 18, h10-index = 23 (Google Scholar)

EMPLOYMENT

Imperial College London (College Personal Page)   Feb. 2020 – ongoing
Department of Electrical and Electronic Engineering, Control and Power Research Group
Line Manager: Prof. Goran Strbac, Chair in Electrical Energy Systems

- **Research Fellow in Market Design for Low Carbon Energy Systems**   Jun. 2023 – ongoing
- **Research Associate**   Feb. 2020 – May 2023

EDUCATION

Imperial College London   Jan. 2016 – Jan. 2020
Ph.D. in Electrical Engineering
Thesis: *Modelling and analysing the impact of local flexibility on the business cases of electricity retailers* (link)
Supervisor: Prof. Goran Strbac, Chair in Electrical Energy Systems

University College London   Sept. 2014 – Sept. 2015
M.Sc. in Power System Engineering
Supervisor: Dr. Ben Hanson

Northumbria University at Newcastle   Sept. 2010 – May 2014
B.Eng. in Electrical and Electronic Engineering
Supervisor: Dr. Zhiwei (David) Gao, IEEE Fellow

RESEARCH INTERESTS

- Reinforcement leaning for power and energy system applications
- Energy market design towards a cost-effective and low-carbon transition
- Decentralized control in multi-energy microgrids for resilience enhancement

PROJECTS

1. Bidding Grants

Energy Systems Decarbonization with Justice and Equity through Technical, Social and Education Innovations   Sept. 2023
New Frontiers in Research Fund - International - 2023
Supported by UK Research & Innovation (UKRI)
Co-Applicant
Task Leader in Task 1.1 - Studies on energy needs of different societies
Task Leader in Task 2.1 - Enhancing flexibility for user-centric energy systems
Task Leader in Task 3.4 - Flexibility options for resilience enhancement under extreme scenarios

FLEXITY - FLEXible energy in the built environment for a sustainable cITY   Nov. 2023
Call: HORIZON-MSCA-2023-DN-01-01
Team Member
PhD Topic Leader - Joint energy and carbon trading among buildings
PhD Topic Leader - Regulatory aspects in the energy market

2. On-going Projects

IDLES - Integrated Development of Low-carbon Energy Systems   Sept. 2019 – ongoing
Supported by EPSRC
Project Leader in Project 6 - Market Design: Aligning Investor, Customer & Societal Objectives
Project Leader in Project 4 - Resilience & Risk Management of Future Whole-Energy Systems

R2D2 - Reliability, Resilience and Defense technology for the griD Sept. 2022 – ongoing
Supported by European Commission
Task Leader in Task 3.5 - Operation and Planning of Advanced Multi-Energy Microgrids for Enhancement of Resilience

REWIRE - REsidential Whole system Integrated REsilience Mar. 2023 – ongoing
Supported by UK Research & Innovation (UKRI)
Researcher in WP3 - High-level Assessment of the Costs and Benefits of Rolling Out the Domestic Multi-energy Concept

WELLNESS - Whole Energy System Resilience Vulnerability Assessment Apr. 2023 – ongoing
Supported by UK Research & Innovation (UKRI)
Researcher in Discovery Phase – Demand side flexibility
Researcher in Alpha Phase – Analysis of the role of distribution networks and demand side flexibility

TradeRES – New Market Design & Models for 100% Renewable Power Systems Sept. 2021 – ongoing
Supported by EU Horizon 2020
Researcher in Local Energy Market Design and Simulation

NetworkPlus - A Green, Connected and Prosperous Britain Mar. 2022 – ongoing
Supported by EPSRC
Researcher in Power System Simulation and Resilience Enhancement

3. Finished Projects

E-FLEX - Real-world Energy Flexibility through Electric Vehicle Energy Trading Sept. 2020 – Feb. 2022
Supported by UK Research & Innovation (UKRI)
Researcher in Modelling and Algorithm Support

Cornwall Local Energy Market Sept. 2019 – Sept. 2020
Supported by European Regional Development Fund
Researcher in Market Simulation

Peer-to-Peer Energy Trading and Sharing - 3M Sept. 2018 – Feb. 2020
Supported by EPSRC
Researcher in Market Design

SUPERVISION

Ph.D. Students (2rd supervisor | co-supervise with Prof. Goran Strbac)

- Mr. Yunhe Wei, Deep reinforcement learning for power system stability control   2023 – ongoing
- Mr. Mohammad Hakami, Safe reinforcement leaning for multi-energy management system   2023 – ongoing
- Mr. Chutian Su, Network-constrained peer-to-peer carbon and energy trading   2023 – ongoing
- Mrs. Aimon Mirza Baig, Market design for frequency security   2023 – ongoing
- Mr. Luciano Pozzi, Strategic bidding in redispatch electricity markets   2022 – ongoing
- Mrs. Yaa A Kwateng, Peer-to-peer energy trading in the local energy community   2020 – ongoing
- Mr. Junkai Wang, Decentralized generation expansion in the deregulated electricity market   2020 – ongoing

Ph.D. Students (advisor | co-supervise with Prof. Goran Strbac)

- Miss Alicia J Blatiak, Reinforcement learning for V2G flexibility in ancillary service   2020 – 2023
- Dr. Yi Wang, Resilience enhancement in the microgrid   2020 – 2022

M.Sc. Students (advisor | co-supervise with Prof. Goran Strbac)

- Mr. Loh Zheng Yang, Role and value of energy storage systems in supporting decarbonization   2022

TEACHING

Power System Economics 2018 – ongoing
B.Eng. and M.Sc. course at Imperial College London
Course teacher: guest lecturer, exam designer and marker, coursework designer and marker   2021 – ongoing
Lecture: "Risks, Markets, and Contracts" - 20 Nov. 2023

Teaching assistant: exam and coursework marker   2018 – 2021

Future Power Networks   2023 – ongoing
M.Sc. course at Imperial College London
Course teacher: guest lecturer
Lecture: "Selected Topics in Power System: Advanced Modelling for Power Systems: Electricity Market and Peer-to-Peer Trading" - 04 Dec. 2023

Sustainable Electrical Systems   2018 – ongoing
B.Eng. and M.Sc. course at Imperial College London
Course teacher: exam and coursework marker   2021 – ongoing
Teaching assistant: exam and coursework marker   2018 – 2021

MEMBERSHIPS

- Member, Institute of Electrical and Electronic Engineers (IEEE), Power and Energy Society (PES)
- Member, Institution of Engineering and Technology (IET)

ACADEMIC SERVICES

Editorial Services

- **Review Editor**
    - Frontiers in Smart Grids   2023 – ongoing
- **Topic Editor**
    - IET Renewable Power Generation
      Statistical Machine-Learning-based Uncertainty Analysis of Renewable Power Generation   Feb. 2024
    - Energies, Sensors, Processes, Electronics, Smart Cities
      Digitalization for Energy Systems   Apr. 2023

Tutorials Organization

- **AI-driven Decarbonization for Power Systems**
  IEEE PowerTech 2023 Conference, 25-29 June 2023, Serbia

- **AI-driven Decarbonization for Energy Systems**
  IEEE SmartGridComm 2022 Conference, 25-28 October 2022, Singapore

Conference Organization

- **Panel Session Chair**
  Collaborative Control and Management of EV Powertrains based on Intelligent Transport Systems
  The 25th IEEE International Conference on Intelligent Transportation Systems, 22 September 2023, China

- **Technical Program Committee**
  Data Management and Grid Analytics Symposium
  IEEE SmartGridComm 2023, 31 October - 3 November 2023, Glasgow, Scotland

Peer Reviewers in Journals

- IEEE Transactions on Power Systems
- IEEE Transactions on Smart Grid
- IEEE Transactions on Sustainable Energy
- IEEE Transactions on Energy Markets, Policy and Regulation
- IEEE Transactions on Industrial Applications
- IEEE Transactions on Industrial Informatics
- IEEE Transactions on Vehicular Technology
- IEEE Transactions on Cyber-Physical Systems
- IEEE Transactions on Intelligent Vehicles
- IEEE Power Engineering Letters
- IEEE Internet of Things Journal
- IET Energy Systems Integration
- IET Renewable Power Generation
- Applied Energy
- Advances in Applied Energy

- Energy Conversion and Management
- Energy Conversion and Economics
- Electric Power Systems Research
- Energies
- CSEE Journal of Power and Energy Systems

PUBLICATIONS

Table 1: Track Record of Journal Publications (Google Scholar)

Journal⋆	Submitted & Revised	Accepted & Published
IEEE Transactions on Power Systems	1	6
IEEE Transactions on Smart Grid		3
IEEE Transactions on Sustainable Energy	1	1
IEEE Transactions on Industrial Informatics	1	3
IEEE Transactions on Industry Applications		1
IEEE Transactions on Vehicular Technology	1	
IEEE Power & Energy Magazine	1	
IEEE Access		1
Proceedings of the IEEE		1
Renewable & Sustainable Energy Reviews		1
Applied Energy	2	10
Advances in Applied Energy	1	1
Energy		1
International Journal of Electrical Power and Energy Systems		1
Electric Power Systems Research		1
IET Generation Transmission & Distribution		1
Energies		1
Total	8	**33**

⋆ 17 first-author journal publications.

⋆ 11 corresponding-author journal publications.

1. Submitted & Revised Journal Papers

S8 **Dawei Qiu**, Aimon Mirza Baig, Yi Wang, Lingling Wang, Chuanwen Jiang, Goran Strbac, "Ancillary service provisions of inertia and frequency response via virtual power plants: a GB power system case", ***Applied Energy***, 1st round revision submitted, Jan. 2024.

S7 **Dawei Qiu**, Goran Strbac, Yi Wang, Jiawei Wang, Pierre Pinson, Vera Silva, Fei Teng, "AI for microgrid resilience: A data-driven and model-free approach", ***IEEE Power & Energy Magazine***, under review, Oct. 2023.

S6 Yi Wang, **Dawei Qiu***, Fei Teng, and Goran Strbac, "Two-Stage Provision Framework of TSO Frequency Response and DSO Voltage Regulation via Electric Vehicle Coordination", ***IEEE Transaction on Power Systems***, under review, Nov. 2023.

S5 Zihang Dong, **Dawei Qiu***, Xi Zhang, Ning Zhang, Goran Strbac, and Chongqing Kang, "Enhancing Microgrid Resilience through a Two-Layer Control Framework for Electric Vehicle Integration and Communication Load Management", ***IEEE Transactions on Sustainable Energy***, under review, Nov. 2023.

S4 Guangchun Ruan, **Dawei Qiu***, Ahmed S. A. Awad, S. Sivaranjani, Goran Strbac, "Data-driven energy management of virtual power plants: A review", ***Advances in Applied Energy***, under review, Oct. 2023.

S3 Haochi Wu, **Dawei Qiu**, Liyu Zhang, Mingyang Sun, "Adaptive Multi-Agent Reinforcement Learning for Flexible Resource Management in a Virtual Power Plant with Dynamic Participating Multi-Energy Buildings", ***Applied Energy***, under review, Oct. 2023.

S2 Jiawei Wang, Yi Wang, Dawei Qiu, Hanguang Su, Goran Strbac and Zhiwei Gao, "Resilient Energy Management of a Multi-Energy Building under Multiple uncertainties: A Deep Reinforcement Learning Approach", ***IEEE Transactions on Industrial Informatics***, under review, Dec. 2023.

S1 Xiaotian Sun, Haipeng Xie, **Dawei Qiu**, Yunpeng Xiao, Goran Strbac, Zhaohong Bie, "Incentivizing EVs to Provide Frequency Regulation Services by Aggregative Game-based Mechanism", ***IEEE Transactions on Vehicular Technology***, under review, Oct. 2023.

2. Accepted Journal Papers

A4 **Dawei Qiu**, Yi Wang, Zhaohao Ding, Yi Wang, and Goran Strbac, "Graph Reinforcement Learning for Carbon-Aware Electric Vehicles in Power-Transport Networks", ***IEEE Transaction on Smart Grid***, early access, Dec. 2023, DOI: 10.1109/TSG.2024.3359289

A3 **Dawei Qiu**, Zihang Dong, Yi Wang, Ning Zhang, Goran Strbac, and Chongqing Kang, "Decarbonising the GB Power System via Numerous Electric Vehicle Coordination", ***IEEE Transaction on Power Systems***, early access, Dec. 2023, DOI: 10.1109/TPWRS.2023.3342168

A2 **Dawei Qiu**, Yi Wang, Jianhong Wang, Ning Zhang, Goran Strbac, and Chongqing Kang, "Resilience-Oriented Coordination of Networked Microgrids: A Shapely Q-Value Learning Approach", ***IEEE Transaction on Power Systems***, early access, May 2023, DOI: 10.1109/TPWRS.2023.3276827

A1 Yi Wang, **Dawei Qiu***, Xiaotian Sun, Zhaohong Bie, and Goran Strbac, "Coordinating Multi-Energy Microgrids for Integrated Energy System Resilience: a Multi-Task Learning Approach", ***IEEE Transactions on Sustainable Energy***, early access, Sept. 2023, DOI: 10.1109/TSTE.2023.3317133

3. Published Journal Papers

P29 **Dawei Qiu**, Yi Wang, Junkai Wang, Chuanwen Jiang, and Goran Strbac, "Personalized retail pricing design for smart metering consumers in electricity market", ***Applied Energy***, vol. 348, p. 121545, Oct. 2023. DOI: https://doi.org/10.1016/j.apenergy.2023.121545

P28 **Dawei Qiu**, Jianhong Wang, Zihang Dong, Yi Wang, and Goran Strbac, "Mean-Field Multi-Agent Reinforcement Learning for Peer-to-Peer Multi-Energy Trading," ***IEEE Transactions on Power Systems***, vol. 38, no. 5, pp. 4853-4866, Sept. 2023. DOI: 10.1109/TPWRS.2022.3217922

P27 **Dawei Qiu**, Yi Wang, Tingqi Zhang, Mingyang Sun, Goran Strbac, "Hierarchical multi-agent reinforcement learning for repair crews dispatch control towards multi-energy microgrid resilience", ***Applied Energy***, vol. 336, p. 120826, Apr. 2023. DOI: https://doi.org/10.1016/j.apenergy.2023.120826

P26 **Dawei Qiu**, Tianyi Chen, Goran Strbac, Shengrong Bu, "Coordination for Multi-Energy Microgrids Using Multi-Agent Reinforcement Learning", ***IEEE Transactions on Industrial Informatics***, vol. 19, no. 4, pp. 5689-5700, Apr. 2023. DOI: 10.1109/TII.2022.3168319

P25 **Dawei Qiu**, Juxing Xue, Tingqi Zhang, Jianhong Wang, Mingyang Sun, "Federated reinforcement learning for smart building joint peer-to-peer energy and carbon allowance trading", ***Applied Energy***, vol. 333, p. 120526, Mar. 2023. DOI: https://doi.org/10.1016/j.apenergy.2022.120526

P24 **Dawei Qiu**, Yi Wang, Weiqi Hua, Goran Strbac, "Reinforcement learning for electric vehicle applications in power systems: a critical review", ***Renewable & Sustainable Energy Reviews***, vol. 173, p. 113052, Mar. 2023. DOI: https://doi.org/10.1016/j.rser.2022.113052

P23 **Dawei Qiu***, Zihang Dong, Guangchun Ruan, Haiwang Zhong, Goran Strbac, Chongqing Kang, "Strategic retail pricing and demand bidding of electricity retailers in a demand response market environment: a data-driven chance-constrained programming", ***Advances in Applied Energy***, vol. 7, p. 100100, Sept. 2022. DOI: https://doi.org/10.1016/j.adapen.2022.100100, Linked to the United Nations (UN) Sustainable Development Goals (SDGs) 7: Ensure access to affordable, reliable, sustainable and modern energy for all.

P22 **Dawei Qiu**, Yi Wang, Tingqi Zhang, Mingyang Sun, Goran Strbac, "Hybrid Multi-Agent Reinforcement Learning for Electric Vehicle Resilience Control Towards a Low-Carbon Transition", ***IEEE Transactions on Industrial Informatics***, vol. 18, no. 1, pp. 8258-8269, Nov. 2022. DOI: 10.1109/TII.2022.3166215

P21 **Dawei Qiu**, Yi Wang, Mingyang Sun, Goran Strbac, "Multi-service provision for electric vehicles in power-transportation networks towards a low-carbon transition: A hierarchical and hybrid multi-agent reinforcement learning approach", ***Applied Energy***, vol. 313, p. 118790, May 2022.
DOI: https://doi.org/10.1016/j.apenergy.2022.118790

P20 **Dawei Qiu**, Zihang Dong, Xi Zhang, Yi Wang, Goran Strbac, "Safe reinforcement learning for real-time automatic control in a smart energy-hub", ***Applied Energy***, vol. 309, p. 118403, Mar. 2022. DOI: https://doi.org/10.1016/j.apenergy.2021.118403

P19 **Dawei Qiu***, Yujian Ye, Dimitrios Papadaskalopoulos, Goran Strbac, "Scalable coordinated management of peer-to-peer energy trading: A multi-cluster deep reinforcement learning approach", ***Applied Energy***, vol. 292, p. 116940, Jun. 2021. DOI: https://doi.org/10.1016/j.apenergy.2021.116940

P18 **Dawei Qiu**, Yujian Ye, and Dimitrios Papadaskalopoulos, "Exploring the effects of local energy markets on electricity retailers and customers", ***Electric Power Systems Research***, vol. 189, p. 106761, Dec. 2020. DOI: https://doi.org/10.1016/j.epsr.2020.106761

P17 **Dawei Qiu**, Yujian Ye, Dimitrios Papadaskalopoulos, and Goran Strbac. "A deep reinforcement learning method for pricing electric vehicles with discrete charging levels", ***IEEE Transactions on Industry Applications***, vol. 56, no. 5, pp. 5901-5912, Sept.-Oct. 2020. DOI: 10.1109/TIA.2020.2984614

P16 **Dawei Qiu**, Dimitrios Papadaskalopoulos, Yujian Ye, and Goran Strbac, "Investigating the effects of demand flexibility on electricity retailers' business through a tri-level optimization model", ***IET Generation Transmission & Distribution***, vol. 14, no. 9, pp. 1739-1750, Apr. 2020. DOI: https://doi.org/10.1049/iet-

gtd.2019.1433

P15 Yi Wang, **Dawei Qiu***, Yu Wang, Mingyang Sun, and Goran Strbac, "Graph Learning-Based Voltage Regulation in Distribution Networks with Multi-Microgrids", ***IEEE Transaction on Power Systems***, vol. 39, no. 1, pp. 1881-1895, Jan. 2024, DOI: 10.1109/TPWRS.2023.3242715

P14 Yi Wang, **Dawei Qiu***, Fei Teng, and Goran Strbac, "Towards Microgrid Resilience Enhancement via Mobile Power Sources and Repair Crews: A Multi-Agent Reinforcement Learning Approach", ***IEEE Transaction on Power Systems***, vol. 39, no. 1, pp. 1329-1345, Jan. 2024, DOI: 10.1109/TPWRS.2023.3240479

P13 Yi Wang, **Dawei Qiu***, Yinlong He, Quan Zhou, and Goran Strbac, "Multi-agent reinforcement learning for electric vehicle decarbonized routing and scheduling", ***Energy***, vol. 284, p. 129335, Dec. 2023. DOI: https://doi.org/10.1016/j.energy.2023.129335

P12 Yi Wang, Anastasios Oulis Rousis, **Dawei Qiu***, Goran Strbac, "A stochastic distributed control approach for load restoration of networked microgrids with mobile energy storage systems", ***International Journal of Electrical Power and Energy Systems***, vol. 148, p. 108999, Jun. 2023.
DOI: https://doi.org/10.1016/j.ijepes.2023.108999

P11 Yi Wang, **Dawei Qiu***, Goran Strbac, Zhiwei Gao, "Secure energy management of multi-energy microgrid: a physical-informed safe reinforcement learning approach", ***Applied Energy***, vol. 335, p. 120759, Apr. 2023.
DOI: https://doi.org/10.1016/j.apenergy.2023.120759

P10 Yi Wang, **Dawei Qiu***, Goran Strbac, Zhiwei Gao, "Coordinated Electric Vehicle Active and Reactive Power Control for Active Distribution Networks", ***IEEE Transactions on Industrial Informatics***, vol. 19, no. 2, pages 1611-1622, Feb. 2023. DOI: 10.1109/TII.2022.3169975

P9 Yi Wang, **Dawei Qiu***, Goran Strbac, "Multi-agent deep reinforcement learning for resilience-driven routing and scheduling of mobile energy storage systems", ***Applied Energy***, vol. 310, p. 118575, Mar. 2022. DOI: https://doi.org/10.1016/j.apenergy.2022.118575

P8 Yujian Ye, **Dawei Qiu***, Jing Li, and Goran Strbac, "Multi-period and multi-spatial equilibrium analysis in imperfect electricity markets: A novel multi-agent deep reinforcement learning approach", ***IEEE Access***, vol. 7, pp 130515-130529, Sep. 2019. DOI: 10.1109/ACCESS.2019.2940005

P7 Lanting Zeng, **Dawei Qiu**, Mingyang Sun, "Resilience Enhancement of Multi-Agent Reinforcement Learning-based Demand Response against Adversarial Attacks", ***Applied Energy***, vol. 324, p. 119688, Oct. 2022. DOI: https://doi.org/10.1016/j.apenergy.2022.119688

P6 Yujian Ye, **Dawei Qiu**, Huiyu Wang, Yi Tang, Goran Strbac, "Real-time autonomous residential demand response management based on twin delayed deep deterministic policy gradient learning", ***Energies***, vol. 14, no. 3, p. 531, Jan. 2021. DOI: https://doi.org/10.3390/en14030531

P5 Yujian Ye, **Dawei Qiu**, Xiaodong Wu, Goran Strbac, Jonathan Ward, "Model-Free Real-Time Autonomous Control for A Residential Multi-Energy System Using Deep Reinforcement Learning", ***IEEE Transaction on Smart Grid***, vol. 11, no. 4, pp. 3068-3082, Jul. 2020. DOI: 10.1109/TSG.2020.2976771

P4 Yujian Ye, **Dawei Qiu**, Mingyang Sun, Dimitrios Papadaskalopoulos and Goran Strbac, "Deep reinforcement learning for strategic bidding in electricity markets", ***IEEE Transaction on Smart Grid***, vol. 11, no. 2, pp. 1343-1355, Mar. 2020. DOI: 10.1109/TSG.2019.2936142

P3 Xiaotian Sun, Haipeng Xie, **Dawei Qiu**, Yunpeng Xiao, Zhaohong Bie, Goran Strbac, "Decentralized frequency regulation service provision for virtual power plants: A best response potential game approach", ***Applied Energy***, vol. 352, p. 121987, Dec. 2023. DOI: https://doi.org/10.1016/j.apenergy.2023.121987

P2 Tingqi Zhang, Mingyang Sun, **Dawei Qiu**, Xi Zhang, Goran Strbac, Chongqing Kang, "A Bayesian Deep Reinforcement Learning-based Resilient Control for Multi-Energy Micro-gird", ***IEEE Transactions on Power Systems***, vol. 38, no. 6, pp. 5057-5072, Nov. 2023. DOI: 10.1109/TPWRS.2023.3233992

P1 Federica Bellizio, Wangkun Xu, **Dawei Qiu**, Yujian Ye, Dimitrios Papadaskalopoulos, Jochen L Cremer, Fei Teng, Goran Strbac, "Transition to Digitalized Paradigms for Security Control and Decentralized Electricity Market", ***Proceedings of the IEEE***, vol. 111, no. 7, pp. 744-761, Jul. 2023.
DOI: 10.1109/JPROC.2022.3161053

4. Peer-Reviewed Conference Papers

C10 **Dawei Qiu**, Nikolaos Chrysanthopoulos, and Goran Strbac, "Tariff Design for Local Energy Communities Through Strategic Retail Pricing", ***19th International Conference on the European Energy Market (EEM)***, Finland, Jun. 2023. DOI: 10.1109/EEM58374.2023.10161888

C9 **Dawei Qiu**, Jianhong Wang, Junkai Wang, Goran Strbac, "Multi-agent reinforcement learning for automated peer-to-peer energy trading in double-side auction market", ***30th International Joint Conference on Artificial Intelligence, IJCAI***, pages 2913-2920, August 2021.

DOI: https://doi.org/10.24963/ijcai.2021/401

C8 **Dawei Qiu**, Yujian Ye, and Dimitrios Papadaskalopoulos, "Exploring the effects of local energy markets on electricity retailers and customers", *21st Power Systems Computation Conference (PSCC)*, Porto, Portugal, 29 Jun. - 3 Jul. 2020. DOI: https://doi.org/10.1016/j.epsr.2020.106761

C7 **Dawei Qiu**, Dimitrios Papadaskalopoulos, Yujian Ye and Goran Strbac, "Investigating the impact of demand flexibility on electricity retailers", *20th Power Systems Computation Conference (PSCC)*, Dublin, Ireland, 11-15 Jun. 2018. DOI: 10.23919/PSCC.2018.8442911

C6 Jiawei Wang, **Dawei Qiu**, Yi Wang, Saptarshi Ghosh, Pierre Pinson, Sandra Dudley, Goran Strbac, "Cost-effective and Resilient Operation of Distribution Grids and 5G Telecommunication", *2023 IEEE Power & Energy Society General Meeting (PESGM)*, Orlando, FL, USA, Jul. 2023.
DOI: 10.1109/PESGM52003.2023.10252696

C5 Junkai Wang, **Dawei Qiu**, Yujian Ye, and Goran Strbac, "Market-Based Generation Planning with Carbon Target", *19th International Conference on the European Energy Market (EEM)*, Finland, Jun. 2023. DOI: 10.1109/EEM58374.2023.10161889

C4 Yi Wang, **Dawei Qiu**, and Goran Strbac, "Multi-agent reinforcement learning for electric vehicles joint routing and scheduling strategies", *25th International Conference on Intelligent Transportation Systems (ITSC)*, China, 8-12 Oct. 2022. DOI: 10.1109/ITSC55140.2022.9921744

C3 Yujian Ye, **Dawei Qiu**, Dimitrios Papadaskalopoulos and Goran Strbac, "A Deep Q-network approach for optimizing offering strategies in electricity markets", *2nd International Conference on Smart Energy Systems and Technologies (SEST)*, Porto, Portugal, 9-11 Sep. 2019. DOI: 10.1109/SEST.2019.8849008

C2 Yujian Ye, **Dawei Qiu**, J. Ward, and M. Abram, "Model-Free Real-Time Autonomous Energy Management for a Residential Multi-Carrier Energy System: A Deep Reinforcement Learning Approach", *29th International Joint Conference on Artificial Intelligence (IJCAI)*, Japan, 11-17 July 2020. DOI: https://doi.org/10.24963/ijcai.2020/48

C1 Dimitrios Papadaskalopoulos, Yujian Ye, T. Oderinwale, and **Dawei Qiu**, "A bi-level optimization modeling framework for investigating the role of flexible demand in deregulated electricity systems", *19th International Conference on Environment and Electrical Engineering*, Italy, 11 -14 June 2019.

5. Project Reports

R3 Ana Estanqueiro, Goran Strbac, Nikolaos Chrysanthopoulos, Gabriel Santos, Silke Jo-hanndeiter, Hugo Algarvio, Helleik Syse, Evelyn Sperber, Ni Wang, Ingrid Jimenez, **Dawei Qiu**, etc., "Innovative electricity market designs to support a transition to (near) 100% renewable power system: first results from H2020 TradeRES project", *IET Digital Library*, pp. 274-281, Jan. 2023.
Link: https://digital-library.theiet.org/content/conferences/10.1049/icp.2023.2748

R2 Ana Rita Machado, António Couto, Christoph Schimeczek, **Dawei Qiu**, etc., "New actor types in electricity market simulation models: Deliverable D4.4", *Project TradeRES - New Markets Design & Models for 100% Renewable Power Systems*, Aug. 2021. Link: https://elib.dlr.de/192524/

R1 Dimitrios Papadaskalopoulos, Yujian Ye, **Dawei Qiu**, Jing Li, Goran Strbac, "Review of electricity market design challenges and recommendations", *Cornwall LEM Project*, European Regional Development Funds, March 2019. Link: https://www.centrica.com/media/4381/review-of-electricity-market-design-challenges-and-recommendations.pdf