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Jinran WU

Research Interests

a. **Statistical Learning under Complex Data Conditions**

Semi-supervised learning, informative missingness, mixture models, robust estimation, kernel and regularisation methods

b. **Computational Statistics and Optimization for Learning**

Efficient optimisation for statistical models, high-dimensional and non-convex problems, stochastic/iterative optimisation, evolutionary and swarm-based methods

c. **Time-series, Forecasting, and Causal Inference**

Statistical modelling and uncertainty quantification in energy, environmental, and socio-economic systems; probabilistic forecasting; causal mechanisms in dynamical systems

Education

2022 **Doctor of Philosophy in Statistics**, *Queensland University of Technology*, Brisbane, Australia

2017 **Master of Applied Statistics**, *Lanzhou University*, Lanzhou, PR China

2014 **Bachelor of Economics in Economic Statistics**, *Anhui University*, Hefei, PR China

PhD Thesis

Title *Statistical Support Vector Machines with Optimizations*

(The 2022 Executive Dean's Commendation for Outstanding Doctoral Thesis)

Supervisors Professors You-Gan Wang, Kevin Burrage, & Yu-Chu Tian

Employments

Feb 2025– **Research Fellow**, *School of Mathematics and Physics, The University of Queensland*, St Lucia, Australia, with Professor Geoffrey J. McLachlan (Fellow of the Australian Academy of Science)

Dec 2022– Jan 2025 **Research Fellow**, *Faculty of Education and Arts, Australian Catholic University*, North Sydney, Australia, with Professor Herbert W. Marsh (Fellow of the Academy of the Social Sciences in Australia and the British Academy of Social Sciences)

Jul 2022– Nov 2022 **Associate Lecturer**, *School of Mathematical Sciences, Queensland University of Technology*, Brisbane, Australia, (short contract)

Jul 2021– Nov 2021 **Sessional Academic**, *School of Mathematical Sciences, Queensland University of Technology*, Brisbane, Australia

Jun 2018– Dec 2018 **Research Assistant**, *UQ Business School, The University of Queensland*, St. Lucia, Australia, with Dr Min Zhu

Selected Publications (20 Representative Works)

Robust Statistical Learning and Uncertainty Modeling

- A new algorithm for support vector regression with automatic selection of hyperparameters. *Pattern Recognition* 133 (2023): 108989.
- A working likelihood approach to support vector regression with a data-driven insensitivity parameter. *International Journal of Machine Learning and Cybernetics* 14 (2023): 929–945.
- Iterative learning in support vector regression with heterogeneous variances. *IEEE Transactions on Emerging Topics in Computational Intelligence* 7 (2022): 513–522.

- Mixture extreme learning machine algorithm for robust regression. *Knowledge-Based Systems* 280 (2023): 111033.
- An adaptive trimming approach to Bayesian additive regression trees. *Complex & Intelligent Systems* 10 (2024): 6805–6823.
- Support vector regression with asymmetric loss for optimal electric load forecasting. *Energy* 223 (2021): 119969.
- Recent advances in longitudinal data analysis. *Handbook of Statistics* 50 (2024): 173–221.

Semi-Supervised Learning

- Informative missingness and its implications in semi-supervised learning. *The Innovation Informatics*, accepted.
- SSLfmm: An R package for semi-supervised learning with a mixed-missingness mechanism in finite mixture models. Submitted to *Journal of Statistical Software*.
- Favourable missingness and Fisher information in semi-supervised classification. Manuscript ready for submission.

Statistical Forecasting and Time-Series Learning

- Robust regression for electricity demand forecasting against cyberattacks. *International Journal of Forecasting* 39 (2023): 1573–1592.
- Robust adaptive rescaled lncosh neural network regression toward time-series forecasting. *IEEE Transactions on Systems, Man, and Cybernetics: Systems* 53 (2023): 5658–5669.
- Augmented support vector regression with an autoregressive process via an iterative procedure. *Applied Soft Computing* 158 (2024): 111549.
- Multi-Granularity Autoformer for long-term deterministic and probabilistic power load forecasting. *Neural Networks* (2025): 107493.

Domain-Driven Modelling

- A new hybrid model to predict the electrical load in five states of Australia. *Energy* 166 (2019): 598–609.
- An improved firefly algorithm for global continuous optimisation problems. *Expert Systems with Applications* 149 (2020): 113340.
- A physics-informed statistical learning framework for forecasting local suspended sediment concentrations in the marine environment. *Water Research* 218 (2022): 118518.
- An evaluation of the impact of COVID-19 lockdowns on electricity demand. *Electric Power Systems Research* 216 (2023): 109015.
- Identifying barley pan-genome sequence anchors using genetic mapping and machine learning. *Theoretical and Applied Genetics* 133 (2020): 2535–2544.
- Mapping the intellectual landscape of educational psychology: citation rankings and network structures of 60 journals, scholars, and institutions. *Learning and Individual Differences* 125 (2026): 102816.

Review Services

Grants

- DAAD Postdoc-Net-AI, German Academic Exchange Service

Methodology and Theory Journals

- Reviewed for leading journals in statistical methodology, machine learning, and computational intelligence, including *IEEE Transactions on Pattern Analysis and Machine Intelligence*, *IEEE Transactions on Neural Networks and Learning Systems*, *IEEE Transactions on Knowledge and Data Engineering*, *IEEE/ACM Transactions on Audio, Speech, and Language Processing*, *IEEE Transactions on Cybernetics*, *IEEE Transactions on Artificial Intelligence*, *IEEE Transactions on Emerging Topics in Computational Intelligence*, *IEEE Transactions on Fuzzy Systems*, *Machine Learning*, *Statistics*, *Statistics in Biosciences*, *International Journal of Forecasting*, *Journal of Applied Statistics*, and *Applied Mathematical Modelling*.

Applied and Domain-driven Journals

- Reviewed for high-impact journals in medicine, energy systems, environmental science, remote sensing, engineering, and domain-driven modelling, including *New England Journal of Medicine*, *IEEE Transactions on Dependable and Secure Computing*, *IEEE Internet of Things Journal*, *IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing*, *Journal of Geophysical Research: Oceans*, *Water Research*, *Applied Energy*, *International Journal for Numerical Methods in Engineering*, *Artificial Intelligence Review*, *Engineering Applications of Artificial Intelligence*, *Technological Forecasting and Social Change*, *Environmental Impact Assessment Review*, *Control Engineering Practice*, *Transport Policy*, and *Journal of Hospitality Marketing & Management*.

Conference Presentations

- Presented work at major international conferences, including the INFORMS Applied Probability Society Conference, the IEEE International Conference on Big Data, the International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEAIAIS), and several conferences on artificial intelligence and machine learning, such as PRICAI and other IEEE venues in computational intelligence and signal processing.

Professional Memberships and Academic Services

Editorial Board Roles

Jul 2024– Academic Editor, *PLOS One*

Jul 2025– Editorial Board Member, *Journal of Computational Intelligence and Swarm Intelligence*

Oct 2025– Youth Editor, *The Innovation Informatics*

Dec 2023– Early Career Editorial Board Member, *Deep Underground Science & Engineering*

Guest Editor Roles

May 2025 Guest Editor, Special Issue on "Impact of Generative Artificial Intelligence on Transportation Safety and Resilience", *Safety Science*

Apr 2025 Guest Editor, Special Issue on "Stability and Persistence of Soil Organic Carbon Pool in a Changing World", *Biology and Fertility of Soils*

Jun 2025 Guest Editor, Special Issue on "Foundation Models and Artificial Intelligence in Geography and Sustainability", *Geography and Sustainability*

Sep 2024 Guest Editor, Special Issue on "Deep-Sea Sediment Transport and Mining", *Frontiers in Earth Science*

Jan 2024 Guest Editor, Special Issue on "Data-Driven Approaches for Efficient Smart Grid Systems", *Frontiers in Energy Research*

Jan 2023 Guest Editor, Special Issue on "Machine Learning in Environmental Modelling", *Environmental Modeling and Assessment*

Program Committee Memberships

Mar 2025 Program Committee Member, 26th International Conference on Artificial Intelligence in Education (AIED 2025), Palermo, Italy

Nov 2024 Program Committee Member, Australasian Data Science and Machine Learning Conference (AusDM 2024), Melbourne, Australia

Jul 2024 Program Committee Member, 17th International Conference on Educational Data Mining (EDM 2024), Atlanta, USA

Additional Academic Service

Sep 2023 Session Convener, XIV Congress of the International Association for Engineering Geology and the Environment (IAEG), Chengdu, China

Teaching Experience

Semester 2, 2025 **Instructor**, MATH7012 (Project or Thesis), The University of Queensland

Semester 2, 2025 **Guest Lecturer**, STAT4401 (Advanced Statistics), The University of Queensland

Semester 2, 2024 **Coordinator**, EDCP600 (Interpreting Literature and Data), Australian Catholic University

Semester 2, 2022 **Coordinator**, MXB343 (Modelling Dependent Data), Queensland University of Technology

Semester 1, 2022 **Guest Lecturer**, MXN441 (Advanced Statistical Inference and Modelling), Queensland University of Technology

Semester 2, 2021 **Tutor**, MXB343 (Modelling Dependent Data), Queensland University of Technology

Semester 1, 2021 **Guest Lecturer**, MXN441 (Advanced Statistical Inference and Modelling), Queensland University of Technology

Grants and Awards

2024 The 2024 Early Career Researcher Grant, Faculty of Education & Arts, ACU
Be awarded the amount of AUD$5,940.24

2023 The 2022 Executive Dean's Commendation for Outstanding Doctoral Thesis, Faculty of Science, QUT

2022 The Chinese Government Award for Outstanding Self-financed Students Abroad
The highest governmental award to Chinese graduate students studying abroad

2020 The QUT Science and Engineering Faculty's High Achiever Award

2018 The Australian Government Research Training Program Scholarship (International)

2018 The ACEMS Top Up Scholarship

Referees

- Professor You-Gan Wang, The University of Queensland;
  Email: you-gan.wang@uq.edu.au
- Professor Geoff McLachlan, The University of Queensland;
  Email: g.mclachlan@uq.edu.au
- Professor Jerzy Filar, The University of Queensland;
  Email: j.filar@uq.edu.au

Full Publications (*Corresponding author; Led study design & writing)

[1] **Jinran Wu**, You-Gan Wang, and Geoffrey J McLachlan. Informative missingness and its implications in semi-supervised learning. *The Innovation Informatics*, 2, 2026.

[2] **Jinran Wu**, Herbert W. Marsh, Jiesi Guo, Johnmarshall Reeve, Reinhard Pekrun, Theresa Dicke, Hye-Ren Jang, and Geetanjali Basarkod. Mapping the intellectual landscape of educational psychology: Citation rankings and network structures of 60 journals, scholars, and institutions. *Learning and Individual Differences*, 125:102816, 2026.

[3] Yujia Huang, **Jinran Wu**, Zhe Ding, and Xi'an Li. Normalized Fourier induced coupled PINNs to solve the Dirichlet biharmonic equations in a large-scale domain. *Frontiers of Computer Science*, pages 1–3, 2026.

[4] Zhuangcai Tian, Shengjie Rui, **Jinran Wu**, Ning Fan, and Lei Guo. Sustainability and environmental considerations in mining: From deep-sea to solid earth. *Frontiers in Earth Science*, page 1712087, 2026.

[5] Yuchao Gao, **Jinran Wu**, Yang Yang, Zijin Wang, and Zhe Ding. Frequency-aware multi-task forecasting for integrated energy systems via variational mode decomposition and convolution-attention encoding. *IEEE Transactions on Smart Grid*, 2026.

[6] Jiesi Guo, Danling Huang, **Jinran Wu**, Hamed Mogouie, and Theresa Dicke. Predictive modelling of australian school principals' turnover intentions using machine learning with random effects. *Discover Computing*, 2025.

[7] Yuming Mo, Jing Xu, Yuhang Tian, Senlin Zhu, **Jinran Wu**, Tong Li, Guangqiu Jin, and Ling Li. Coupled salt and nitrogen dynamics in coastal reservoir-adjacent aquifer systems under extreme rainfall event. *Journal of Contaminant Hydrology*, page 104762, 2026.

[8] Yang Yang, Zhihao Chen, Yuchao Gao, Zijin Wang, Zhe Ding, and **Jinran Wu**. Network traffic forecasting with transfer learning-based algorithm for long continuous missing data. *Expert Systems with Applications*, 297:129484, 2026.

[9] Zixi Zhao, Shaotong Zhang, **Jinran Wu**, Yao Jin, Lulu Qiao, Guangxue Li, and Sanzhong Li. Separating the horizontal advection component from field-measured suspended sediment concentration profile. *Water Research*, 288:124630, 2026.

[10] Fengjing Cai, Yue Wang, Wanghua Yu, **Jinran Wu***, Chanjuan Liu, and Xi'an Li. ASISTGCRN: A novel approach to traffic prediction using attention-based spatiotemporal graph networks. *Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering*, 2025.

[11] Yang Yang, Yuchao Gao, **Jinran Wu***, and Shangce Gao. Optimal predictive load frequency control with multi-objective PID-based search algorithm. *Swarm and Evolutionary Computation*, 99:102214, 2025.

[12] Zhesen Cui, Qingbin Zhang, Zhixing Zhao, Maosheng Yang, Pan Kong, Shuobao Cai, Jinran Zhang, Jing Xu, **Jinran Wu***, Rajib Pandey, and Tong Li. A two-stage probabilistic forecasting framework for dam displacement: Evidence from a Chinese watershed. *Journal of Hydrology: Regional Studies*, 62:102822, 2025.

[13] **Jinran Wu***, Yang Yang, Shaolong Sun, and Yang Yu. Data-driven approaches for efficient smart grid systems. *Frontiers in Energy Research*, 12:1536459, 2025.

[14] Yayong Li, Xubo Zhang, Hong Zhang, Nan Ye, Zongli Liu, and **Jinran Wu**. Generalized few-shot node classification via training set refinement. In *Pacific Rim International Conference on Artificial Intelligence*, pages 1–16. Springer, 2025.

[15] Yang Yang, Fenglin Zhu, Yuchao Gao, Zhihao Chen, Xi'an Li, Shangce Gao, and **Jinran Wu***. A comprehensive review of artificial intelligence in electrocardiogram diagnostics: Integrating knowledge map and meta-analysis approaches. *Applied Soft Computing*, 183:113655, 2025.

[16] Jing Xu, Yuming Mo, Qihao Jiang, Lingzhong Kong, **Jinran Wu**, Zhe Ding, Guangqiu Jin, and Ling Li. Rainfall-dependent influence of water parameter interactions and land use on lake water

quality: A hybrid ensemble approach and management implications. *Journal of Hydrology*, 662, Part B:134019, 2025.

[17] Tian Li, Feifei Han, Jiesei Guo, and **Jinran Wu**. Comparative analysis of regularization methods for predicting student certification in online courses. *Advanced Learning Analytics Methods: AI, Precision and Complexity*, 2025.

[18] Fengjing Cai, Yue Wang, Zhuangcai Tian, Xi'an Li, Jing Xu, Yuming Mo, Shaotong Zhang, and **Jinran Wu**. Integrating attention mechanisms in graph neural networks for marine oil spill detection. *Journal of Ocean University of China*, 24:1327—1340, 2025.

[19] Maoxuan Miao, **Jinran Wu**, Fengjing Cai, Liya Fu, Shurong Zheng, and You-Gan Wang. Feature selection for stock movement direction prediction using sparse support vector machine. *Applied Stochastic Models in Business and Industry*, 41(3):e70011, 2025.

[20] Jiali Fu, Fengjing Cai, **Jinran Wu**, Shangrui Zhao, and You-Gan Wang. Inflation transmission diagnostics via a Bayesian graph vector autoregressive model with markov switching. *Journal of Systems Science and Complexity*, 38:1659–1682, 2025.

[21] Yang Yang, Yuchao Gao, Hu Zhou, **Jinran Wu**, Shangce Gao, and You-Gan Wang. Multi-granularity autoformer for long-term deterministic and probabilistic power load forecasting. *Neural Networks*, 188:107493, 2025.

[22] Zhesen Cui, Tian Li, Zhe Ding, Xi'an Li, and **Jinran Wu***. Probabilistic oil price forecasting with a variational mode decomposition-gated recurrent unit model incorporating pinball loss. *Data Science and Management*, 8(3):237–247, 2025.

[23] Nuo Xu, **Jinran Wu**, Fengjing Cai, Xi'an Li, and Hong-Bo Xie. ViT-GCN: A novel hybrid model for accurate pneumonia diagnosis from X-ray images. *Biomedical Physics & Engineering Express*, 11:045034, 2025.

[24] Yuming Mo, Jing Xu, Senlin Zhu, Beibei Xu, **Jinran Wu**, Guangqiu Jin, You-Gan Wang, and Ling Li. Spatial heterogeneity of groundwater depths in coastal cities and their responses to multiple factors interactions by interpretable machine learning models. *Geoscience Frontiers*, 16(3):102033, 2025.

[25] Yuming Mo, Jing Xu, Kun Wang, Beibei Xu, **Jinran Wu**, Qihao Jiang, Guangqiu Jin, and Ling Li. Effects of seawater salinity variations on nitrogen transport in the coastal reservoir and adjacent aquifer. *Journal of Hydrology*, 661, Part A:133539, 2025.

[26] Yu-Qi Yin, Chanjuan Liu, and **Jinran Wu**. Scheduling automated guided vehicles considering the buffer lane constraints. *Engineering Computations*, 42(4):1641–1670, 2025.

[27] Shangrui Zhao, Weiqi Yu, **Jinran Wu***, Xi'an Li, and You-Gan Wang. An adaptive regression algorithm with a clustering process for multi-modal data prediction. *Discover Computing*, 28(1):94, 2025.

[28] Xi'an Li, **Jinran Wu**, Yujia Huang, Zhe Ding, Xin Tai, Liang Liu, and You-Gan Wang. Fourier-feature induced physics informed randomized neural network method to solve the biharmonic equation. *Journal of Computational and Applied Mathematics*, 468:116635, 2025.

[29] Fan Liu, Fang Wang, Zaiqi Zhang, Liang Cao, **Jinran Wu**, and You-Gan Wang. Classical and machine learning tools for identifying yellow-seeded Brassica napus by fusion of hyperspectral features. *Frontiers in Genetics*, 15:1518205, 2025.

[30] Yang Yang, Yuchao Gao, Shangce Gao, and **Jinran Wu***. Optimizing PID controllers for multi-area automatic generation control with improved NSGA-II. *CAAI Transactions on Intelligence Technology*, 10:1135—1147, 2025.

[31] Hexiang Chen, Guangqiu Jin, Hongwu Tang, **Jinran Wu**, You-Gan Wang, Zhongtian Zhang, Yanqing Deng, and Siyi Zhang. Spatiotemporal variations of water levels and river-lake interaction in the Poyang Lake basin under the extreme drought. *Journal of Hydrology: Regional Studies*, 57:102165, 2025.

[32] **Jinran Wu**, You-Gan Wang, and Hao Zhang. Augmented support vector regression with an autoregressive process via an iterative procedure. *Applied Soft Computing*, 158:111549, 2024.

[33] Xi'an Li, **Jinran Wu***, Xin Tai, Jianhua Xu, and You-Gan Wang. Solving a class of multi-scale elliptic PDEs by fourier-based mixed physics informed neural networks. *Journal of Computational Physics*, 508:113012, 2024.

[34] Liya Fu, You-Gan Wang, and **Jinran Wu**. Recent advances in longitudinal data analysis. *Modeling and Analysis of Longitudinal Data*, 50:173, 2024.

[35] Shaotong Zhang, Zixi Zhao, **Jinran Wu**, Yao Jin, Dong-Sheng Jeng, Sanzhong Li, Guangxue Li, and Dong Ding. Solving the temporal lags in local significant wave height prediction with a new VMD-LSTM model. *Ocean Engineering*, 313:119385, 2024.

[36] Zixi Zhao, Shaotong Zhang, **Jinran Wu**, Lulu Qiao, Guangxue Li, Hongyi Li, and Sanzhong Li. Analysis of fine-grained sediment dynamics from field observations with a vector autoregressive model. *Journal of Hydrology*, 644:132100, 2024.

[37] Yuming Mo, Jing Xu, Chanjuan Liu, **Jinran Wu**, and Dong Chen. Assessment and prediction of water quality index (WQI) by seasonal key water parameters in a coastal city: Application of machine learning models. *Environmental Monitoring and Assessment*, 196:1008, 2024.

[38] You-Gan Wang and **Jinran Wu**. Foreword: Machine learning in environmental modelling. *Environmental Modeling & Assessment*, 29(3):425–426, 2024.

[39] Zhesen Cui, Zhe Ding, Jing Xu, Shaotong Zhang, **Jinran Wu**, and Wei Lian. Probabilistic sunspot predictions with a gated recurrent units-based combined model guided by pinball loss. *Scientific Reports*, 14(1):13601, 2024.

[40] Chanjuan Liu, Jing Xu, Xi'an Li, Zhongyao Yu, and **Jinran Wu***. Water resource forecasting with machine learning and deep learning: A scientometric analysis. *Artificial Intelligence in Geosciences*, 5:100084, 2024.

[41] Yang Yang, Yuchao Gao, Zhe Ding, **Jinran Wu***, Shaotong Zhang, Feifei Han, Xuelan Qiu, Shangce Gao, and You-Gan Wang. Advancements in Q-learning meta-heuristic algorithms: A survey. *Wiley Interdisciplinary Reviews: Data Mining and Knowledge Discovery*, 14(6):e1548, 2024.

[42] Yang Yang, Hao Lou, **Jinran Wu***, Shaotong Zhang, and Shangce Gao. A survey on wind power forecasting with machine learning approaches. *Neural Computing and Applications*, 36(21):12753–12773, 2024.

[43] Yang Yang, Zijin Wang, Shangrui Zhao, Hu Zhou, and **Jinran Wu***. Robust autoregressive bidirectional gated recurrent units model for short-term power forecasting. *Engineering Applications of Artificial Intelligence*, 138:109453, 2024.

[44] Yang Yang, Yuchao Gao, Zijin Wang, Xi'an Li, Hu Zhou, and **Jinran Wu***. Multiscale-integrated deep learning approaches for short-term load forecasting. *International Journal of Machine Learning and Cybernetics*, 15(12):6061–6076, 2024.

[45] Yang Yang, Hao Lou, Zijin Wang, and **Jinran Wu***. Pinball-Huber boosted extreme learning machine regression: A multi-objective approach to accurate power load forecasting. *Applied Intelligence*, 54(17):8745–8760, 2024.

[46] Yang Yang, Yuchao Gao, **Jinran Wu***, Zhe Ding, and Shangrui Zhao. Improving pid controller performance in nonlinear oscillatory automatic generation control systems using a multi-objective marine predator algorithm with enhanced diversity. *Journal of Bionic Engineering*, 21(5):2497–2514, 2024.

[47] Xuelan Qiu, Jimmy de la Torre, You-Gan Wang, and **Jinran Wu**. The use of polytomous multidimensional forced-choice items to assess construct differentiation in personality psychology. *Educational Measurement: Issues and Practice*, 43(4):157–168, 2024.

[48] Taoyun Cao, **Jinran Wu***, and You-Gan Wang. An adaptive trimming approach to Bayesian additive regression trees. *Complex & Intelligent Systems*, 10(5):6805–6823, 2024.

[49] Siyuan Liu, Jiaxin Deng, Jin Yuan, Weide Li, Xi'an Li, Jing Xu, Shaotong Zhang, **Jinran Wu***, and You-Gan Wang. Probabilistic quantile multiple Fourier feature network for lake temperature forecasting: incorporating pinball loss for uncertainty estimation. *Earth Science Informatics*, 17(6):5135–5148, 2024.

[50] Shaotong Zhang, Zixi Zhao, **Jinran Wu**, Pierre Perrochet, You-Gan Wang, Guangxue Li, and Sanzhong Li. Optimization of suspended particulate transport parameters from measured concentration profiles with a new analytical model. *Water Research*, 254:121407, 2024.

[51] Zhuangcai Tian, Jinjian Huang, Jiaming Xiang, Shaotong Zhang, **Jinran Wu**, Xiaolei Liu, Tingting Luo, and Jianhua Yue. Interaction between internal solitary waves and the seafloor in the deep sea. *Deep Underground Science and Engineering*, 3(2):149–162, 2024.

[52] Jing Xu, Yuming Mo, Senlin Zhu, **Jinran Wu**, Guangqiu Jin, You-Gan Wang, Qingfeng Ji, and Ling Li. Assessing and predicting water quality index with key water parameters by machine learning models in coastal cities, China. *Heliyon*, 10(13):e33695, 2024.

[53] Chaojun Zou, Xinghui Zhu, Fang Wang, **Jinran Wu**, and You-Gan Wang. Rapeseed seed coat color classification based on the visibility graph algorithm and hyperspectral technique. *Agronomy*, 14(5):941, 2024.

[54] Shaotong Zhang, Zixi Zhao, Guangxue Li, **Jinran Wu**, You-Gan Wang, Peter Nielsen, Dong-Sheng Jeng, Lulu Qiao, Chenghao Wang, and Sanzhong Li. Estimation of sediment transport parameters from measured suspended concentration time series under waves and currents with a new conceptual model. *Water Resources Research*, 60(4):e2023WR034933, 2024.

[55] Xi'an Li, Jiaxin Deng, **Jinran Wu***, Shaotong Zhang, Weide Li, and You-Gan Wang. Physical informed neural networks with soft and hard boundary constraints for solving advection-diffusion equations using Fourier expansions. *Computers & Mathematics with Applications*, 159:60–75, 2024.

[56] Shaotong Zhang, Jiaxin Deng, Xi'an Li, Zixi Zhao, **Jinran Wu**, Weide Li, You-Gan Wang, and Dong-Sheng Jeng. Solving the one dimensional vertical suspended sediment mixing equation with arbitrary eddy diffusivity profiles using temporal normalized physics-informed neural networks. *Physics of Fluids*, 36(1), 2024.

[57] Yanan Song, **Jinran Wu**, Liya Fu, and You-Gan Wang. Robust augmented estimation for hourly $PM_{2.5}$ using heteroscedastic spatiotemporal models. *Stochastic Environmental Research and Risk Assessment*, 38:1423–1451, 2024.

[58] **Jinran Wu**, Noa Levi, Robyn Araujo, and You-Gan Wang. An evaluation of the impact of COVID-19 lockdowns on electricity demand. *Electric Power Systems Research*, 216:109015, 2023.

[59] You-Gan Wang, **Jinran Wu***, Zhi-Hua Hu, and Geoffrey J McLachlan. A new algorithm for support vector regression with automatic selection of hyperparameters. *Pattern Recognition*, 133:108989, 2023.

[60] Daniel VandenHeuvel, **Jinran Wu**, and You-Gan Wang. Robust regression for electricity demand forecasting against cyberattacks. *International Journal of Forecasting*, 39(4):1573–1592, 2023.

[61] Shangrui Zhao, Xuan-Ang Chen, **Jinran Wu***, and You-Gan Wang. Mixture extreme learning machine algorithm for robust regression. *Knowledge-Based Systems*, 281:111033, 2023.

[62] Shangrui Zhao, Zhen Yang, Shaotong Zhang, **Jinran Wu**, Zixi Zhao, Dong-Sheng Jeng, and You-Gan Wang. Predictions of runoff and sediment discharge at the lower Yellow River Delta using basin irrigation data. *Ecological Informatics*, 78:102385, 2023.

[63] Zhesen Cui, **Jinran Wu***, Wei Lian, and You-Gan Wang. A novel deep learning framework with a COVID-19 adjustment for electricity demand forecasting. *Energy Reports*, 9:1887–1895, 2023.

[64] Zixi Zhao, **Jinran Wu**, Fengjing Cai, Shaotong Zhang, and You-Gan Wang. A hybrid deep learning framework for air quality prediction with spatial autocorrelation during the COVID-19 pandemic. *Scientific Reports*, 13(1):1015, 2023.

[65] Yang Yang, Hu Zhou, **Jinran Wu**, Zhe Ding, Yu-Chu Tian, Dong Yue, and You-Gan Wang. Robust rescaled lncosh neural network regression toward time series forecasting. *IEEE Transactions on Systems, Man, and Cybernetics: Systems*, 53(9):5658 – 5669, 2023.

[66] Shang Gao, Shoukun Chen, Maogeng Yang, **Jinran Wu**, Shihua Chen, and Huihui Li. Mining salt stress-related genes in spartina alterniflora via analyzing co-evolution signal across 365 plant species using phylogenetic profiling. *Abiotech*, 4(4):291–302, 2023.

[67] Shaotong Zhang, Zhen Yang, Yaqi Zhang, Shangrui Zhao, **Jinran Wu**, Chenghao Wang, You-Gan Wang, Dong-Sheng Jeng, Peter Nielsen, Guangxue Li, et al. Improved prediction of local significant wave height by considering the memory of past winds. *Water Resources Research*, 59(8):e2023WR034974, 2023.

[68] Xu Xu, Yixiang Zhang, Clare Anne McGrory, **Jinran Wu***, and You-Gan Wang. Forecasting stock closing prices with an application to airline company data. *Data Science and Management*, 6(4):239–246, 2023.

[69] Shaotong Zhang, Zixi Zhao, Peter Nielsen, **Jinran Wu**, Yonggang Jia, Guangxue Li, and Sanzhong Li. Subaqueous silt ripples measured by an echo sounder: Implications for bed roughness, bed shear stress and erosion threshold. *Journal of Hydrology*, 626:130354, 2023.

[70] Zihan Hao, Weide Li, **Jinran Wu**, Shaotong Zhang, and Shujuan Hu. A novel deep learning model for mining nonlinear dynamics in lake surface water temperature prediction. *Remote Sensing*, 15(4):900, 2023.

[71] Gayani Krishanthi, Harshanie Jayetileke, **Jinran Wu**, Chanjuan Liu, and You-Gan Wang. Enhancing feature selection optimization for COVID-19 microarray data. *COVID*, 3(9):1336–1355, 2023.

[72] Shuang Tan, Shangrui Zhao, and **Jinran Wu**. QL-ADIFA: Hybrid optimization using Q-learning and an adaptive logarithmic spiral-levy firefly algorithm. *Mathematical Biosciences and Engineering*, 20(8):13542–13561, 2023.

[73] Zhuangcai Tian, Hanlu Liu, Shaotong Zhang, **Jinran Wu**, and Jiahao Tian. Prediction of shear stress induced by shoaling internal solitary waves based on machine learning method. *Marine Georesources & Geotechnology*, 41(2):221–232, 2023.

[74] Yang Yang, Yuwei Zhang, Zijin Wang, **Jinran Wu**, and Xuefeng Si. Event-trigger-based fault-tolerant control of uncertain non-affine sys-tems with predefined performance. *International Journal of Control, Automation and Systems*, 21(2):519–535, 2023.

[75] Shangrui Zhao, Yulu Wu, Shuang Tan, **Jinran Wu***, Zhesen Cui, and You-Gan Wang. QQLMPA: A quasi-opposition learning and Q-learning based marine predators algorithm. *Expert Systems with Applications*, 213:119246, 2023.

[76] Ziqian Wang, Zihao Chen, Yang Yang, Chanjuan Liu, Xi'an Li, and **Jinran Wu***. A hybrid autoformer framework for electricity demand forecasting. *Energy Reports*, 9:3800–3812, 2023.

[77] Yang Yang, Xin Fan, Weinan Gao, Wenbin Yue, Aaron Liu, Shuocong Geng, and **Jinran Wu**. Event-triggered output feedback control for a class of nonlinear systems via disturbance observer and adaptive dynamic programming. *IEEE Transactions on Fuzzy Systems*, 31(9):3148 – 3160, 2023.

[78] **Jinran Wu** and You-Gan Wang. Iterative learning in support vector regression with heterogeneous variances. *IEEE Transactions on Emerging Topics in Computational Intelligence*, 7(2):513–522, 2023.

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