

# Haoliang Wang

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Department of Automation | Tsinghua University | P.R. China

## Education

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<b>Tsinghua University</b> , Department of Automation	Beijing, CN
<b>Ph.D. in Computer Science</b>	Sept 2022 – Expected 2026
Advisor: Prof. Hui Qiao (in Prof. Qionghai Dai's Group)	
<b>Tsinghua University</b> , Institute of Interdisciplinary Information Sciences	Beijing, CN
<b>Masters in Computer Science</b>	Sept 2019 – June 2022
Advisor: Prof. Chenye Wu	
<b>Tsinghua University</b> , Mechanical engineering	Beijing, CN
<b>B.E. in Department of thermal and power engineering</b>	Sept 2015 – June 2019

## Publication List

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### Conference Proceedings

- Haoliang Wang**, Tao Yu, Tianwei Yang, Hui Qiao, Qionghai Dai, "Neural physical simulation with multi-resolution hash grid encoding." in *the AAAI Conference on Artificial Intelligence, 2024* (AAAI oral, 2024).
- Haoliang Wang**, Tao Yu, Hui Qiao, Qionghai Dai, "Neural Fluid Simulation on Geometric Surfaces." in *The Thirteenth International Conference on Learning Representations (ICLR 2025)*.
- Haoliang Wang**, Hui Qiao, Kui Wu, Mattieu Desbrun, Wei Li, "Kinetic Free-Surface Flows and Foams with sharp Interfaces", siggraph asia 2025 (journal track), conditionally accepted.
- Zhengxian Yang, Shi Pan, Shengqi Wang, **Haoliang Wang**, Li Lin, Guanjuan Li, Zhengqi Wen, Borong Lin, Jianhua Tao, Tao Yu. "ImViD: Immersive Volumetric Videos for Enhanced VR Engagement." in *The IEEE/CVF Conference on Computer Vision and Pattern Recognition 2025 (CVPR 2025 highlight)*.
- Haoliang Wang**, Chenye Wu, "Optimal green certificate auction design embedding economic dispatch." in *the Thirteenth ACM International Conference on Future Energy Systems (SigEnergy 22)*.
- Haoliang Wang**, Chenye Wu, "Understanding differential privacy in non-intrusive load monitoring." in *the Eleventh ACM International Conference on Future Energy Systems (SigEnergy 20)*.
- Haoliang Wang**, Xun Luo, Chenye Wu, "Differential privacy in consumer behavior analysis." in *IEEE Power & Energy Society General Meeting (PESGM 2021)*.

### Journal Articles

- Haoliang Wang**, Jiasheng Zhang, Chenbei Lu, Chenye Wu, "Privacy preserving in non-intrusive load monitoring: A differential privacy perspective" in *IEEE Transactions on Smart Grid* (2020).
- Haoliang Wang**, Chenye Wu, "Privacy preservation for time series data in the electricity sector" in *IEEE Transactions on Smart Grid* (2022).
- Chenbei Lu, Jingshi Cui, **Haoliang Wang**, Chenye Wu, "Privacy preserving user energy consumption profiling: From theory to application" in *IEEE Transactions on Smart Grid* (2023).
- Chenbei Lu, Jinhao Liang, Nan Gu, **Haoliang Wang**, Chenye Wu, "Manipulation-Proof Virtual Bidding Mechanism Design," in *IEEE Transactions on Energy Market, Policy and Regulation*, (2023).
- Nan Gu, **Haoliang 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*, (2021).

6. **Haoxiang Wang**, Zhanhong Jiang, Chao Liu, Soumik Sarkar, Dongxiang Jiang, Young M. Lee "Asynchronous training schemes in distributed learning with time delay" in *Transactions on Machine Learning Research* (TMLR 2024).
7. Xiaohang Yu, **Haoxiang Wang**, Yuqi Han, Lei Yang, Tao Yu, Qionghai Dai "ImmersiveNeRF: Hybrid Radiance Fields for Unbounded Immersive Light Field Reconstruction" in *IEEE Transactions on Visualization and Computer Graphics* (TVCG 2024).

More publications (about 4) are showed in <https://www.haoxiang-wang.top> and Google Scholar.

## Academic Service

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### Reviewer:

- *NeurIPS 2022-2024, ICML 2023-2025, ICLR 2023-2025, AAI 2024, AISTAT 2024*
- *Transactions on Machine Learning Research*
- *Applied Energy*
- *IEEE transaction on Smart Grid*

### Teaching Assistant:

- 2021, 2022, Basic of Artificial Intelligence (Undergrad Course), Tsinghua University

## INVITED TALKS AND PRESENTATIONS

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1. "Privacy Preserving in Non-Intrusive Load Monitoring: A Differential Privacy Perspective", IEEE Power & Energy Society General Meeting, Washington DC, USA, June 2021.
2. "Optimal green certificate auction design embedding economic dispatch", the Thirteenth ACM International Conference on Future Energy Systems, Virtual, July 2022.
3. "Neural physical simulation with multi-resolution hash grid encoding", AAI Conference on Artificial Intelligence, Vancouver Canada, February 2024.

## Honor

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Academic excellence scholarship of Tsinghua university	2016,2017
Excellent graduate of Tsinghua University	2019

## Programming Skills

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Machine Learning (Pytorch, Jax), High-Performance Computing (C++ , CUDA), Scientific Computing (Matlab)