

Haifeng WANG

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PROFESSIONAL APPOINTMENT

Assistant Professor. Department of Civil and Environmental Engineering 01/2023–Present
Washington State University. Pullman WA

Adjunct Faculty. Department of Civil and Environmental Engineering 09/2022–12/2022
Washington State University. Pullman WA

Postdoctoral Research Associate. Department of Civil and Environmental Engineering. Lehigh University, Bethlehem PA 09/2021–12/2022
Advisor: Dr. Paolo Bocchini and Dr. Jamie Padgett (Rice University)

EDUCATION

Ph.D., Civil Engineering 08/2021

University at Buffalo, The State University of New York
Department of Civil, Structural and Environmental Engineering
Dissertation: *Performance-Based Hurricane Engineering of Tall Buildings: Nonstationary Wind, Loading Protocol and Nonlinear Response*
FE Michigan, 2021 (EIT)

M.S., Civil Engineering 06/2015

Southeast University, China. Department of Civil Engineering
Thesis: *A Wavelet-Based Damage Identification for Ship Building Gantry Cranes*

B.E., Civil Engineering 06/2012

Southeast University, China. Department of Civil Engineering
Outstanding Graduates of Jiangsu Province, China

JOURNAL PUBLICATIONS

1. Liu, H. and **Wang, H.**, 2025. Gaussian kernel-based motion measurement. *arXiv preprint arXiv:2507.13693*
2. Liu, H. and **Wang, H.**, 2024. A review on vision-based motion estimation. *arXiv preprint arXiv:2407.14478*.
3. **Wang, H.**, Bocchini, P., Padgett, J., 2024, Estimation of wind pressure field on low-rise buildings based on a novel conditional neural network. *Journal of Wind Engineering and Industrial Aerodynamics*, 250, 105752
4. Deng, Y., **Wang, H.** and Shi, X., 2024. Physics-guided neural network for predicting asphalt mixture rutting with balanced accuracy, stability and rationality. *Neural Networks*, 172, 106085.
5. **Wang, H.** and Wu, T., 2022, Statistical Investigation of Wind Duration Using a Refined Hurricane Track Model. *Journal of Wind Engineering and Industrial Aerodynamics*, 221, 104908.

6. **Wang, H.** and Wu, T., 2021, A Hilbert-Wavelet-Based Nonstationarity Index for Multi-Level Quantification of Extreme Winds. *Journal of Wind Engineering and Industrial Aerodynamics*, 215, 104682.
7. **Wang, H.** and Wu, T., 2020, Fast Hilbert-Wavelet-Based Simulation of Nonstationary Wind Field using Non-Iterative Simultaneous Matrix Diagonalization. *Journal of Engineering Mechanics*, 147(3), 04020153.
8. **Wang, H.** and Wu, T., 2020, Knowledge-Enhanced Deep Learning for Wind-Induced Nonlinear Structural Dynamic Analysis. *Journal of Structural Engineering*, 146(11), 04020235. ***Editor's Choice***
9. **Wang, H.** and Wu, T., 2020, Time-Varying Multiscale Spatial Correlation: Simulation and Application to Wind Loading of Structures. *Journal of Structural Engineering*, 146(7), 04020138.
10. Li, L., Zhou, Y., **Wang, H.**, Zhou, H., He, X. and Wu, T., 2019, An Analytical Framework for the Investigation of Tropical Cyclone Wind Characteristics over Different Measurement Conditions. *Applied Sciences*, 9(24), 5385.
11. Zheng, C., Liu, Z., Wu, T., **Wang, H.**, Wu, Y. and Shi, X., 2019, Experimental Investigation of Vortex-Induced Vibration of a Thousand-Meter-Scale Mega-Tall Building. *Journal of Fluids and Structures*, 85, 94-109.
12. **Wang, H.** and Wu, T., 2018, Hilbert-Wavelet-Based Nonstationary Wind Field Simulation: A Multiscale Spatial Correlation Scheme. *Journal of Engineering Mechanics*, 144(8), 04018063.
13. Noori, M., **Wang, H.**, Altabey, W.A. and Silik, A.I., 2018, A Modified Wavelet Energy Rate-Based Damage Identification Method for Steel Bridges. *Scientia Iranica*, 25, 3210-3230.

PROFESSIONAL SERVICE AND MEMBERSHIPS

Member of ASCE Center for Technical Advancement AI Task Force	2025
Co-Chair of Engineering Mechanics Institute Conference (EMI) mini symposia: "Machine Learning Applications in Natural Hazards Engineering for Enhancing Civil Infrastructure Resilience"	2025
Member: EMI-SHMC Committee	2024
Editorial Board Member: <i>Journal of Advances in Wind Engineering</i>	2024
Co-Chair of Engineering Mechanics Institute Conference (EMI) mini symposia: "Machine learning applications in wind engineering"	2024
NSF proposal reviewer	2023
Conference Session Chair: The 8 th World Conference on Structural Control and Monitoring. Session: New Advances in Enhanced Passive, Adaptive Passive, & Semi-active Vibration Control	2022
Member of American Association for Wind Engineering (AAWE), American Society of Civil Engineers (ASCE), and Institute of Electrical and Electronics Engineers (IEEE)	
Reviewer: Atmosphere, Experimental Techniques, International Journal of Rail Transportation, Journal of Bridge Engineering, Journal of Civil Structural Health Monitoring, Journal of Marine Science and Engineering, Journal of Structural Engineering, Structural Engineering International, Structural Health Monitoring, Structures, Sustainability Analytics and Modeling.	