KANG HE

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Education

Ph.D. in Environmental Engineering
University of Connecticut, Storrs, CT — May 2023 (Expected)
Advisor: Prof. Dr. Emmanouil Anagnostou

M. Sc. in Resource & Environmental Sciences
Zhejiang University, China — 2019
Advisor: Dr. Zhou Shi

B. Sc. in Resource & Environmental Sciences
Zhejiang University, China — 2016

Professional Appointments

Graduate Research Assistant — 2019 - Present
Environmental Engineering Program within the Department of Civil & Environmental Engineering in the School of Engineering, University of Connecticut

Research Interests

- Remote sensing
- Machine learning
- Hydrology modeling
- Wildfire severity modeling

Technical Knowledge

Programming Language:	Google Earth Engine, MATLAB, R
Hydrodynamic Modeling:	HECRAS 2D
Hydrologic Modeling:	CREST- SVAS
Geospatial/ Remote Sensing:	ArcGIS

Research Projects

1. National Science Foundation HDR award entitled "Collaborative Research: Near term forecast of Global Plant Distribution Community Structure, and Ecosystem Function — Fall 2020- Present
2. Evaluation of Substations Vulnerability of Flooding in Current and Climate Change Scenarios — 2018- 2019

Publications

1. **He, K,** Shen, X., Anagnostou, E.N., Merow, C., Nikolopoulos,E., Gallagher, R.V., Yang, F. "Predicting wildfire severity: a machine learning based application in Australian ecosystems." Environmental Research Letters (submitted).
2. **He, K**., Yang, Q., Shen, X. and Anagnostou, E.N., 2022. Brief communication: Western Europe flood in 2021–mapping agriculture flood exposure from synthetic aperture radar (SAR). Natural Hazards and Earth System Sciences, 22(9), pp.2921-2927.
3. Yang, Q., Shen, X., Yang, F., Anagnostou, E.N., **He, K**., Mo, C., Seyyedi, H., Kettner, A.J. and Zhang, Q., 2022. Predicting flood property insurance claims over CONUS, fusing big Earth observation data. Bulletin of the American Meteorological Society, 103(3), pp.E791-E809.
4. Gallagher, R.V., Allen, S., Mackenzie, B.D., Yates, C.J., Gosper, C.R., Keith, D.A., Merow, C., White, M.D., Wenk, E., Maitner, B.S. and **He, K**., 2021. High fire frequency and the impact of the 2019–2020 megafires on Australian plant diversity. Diversity and Distributions, 27(7), pp.1166-1179.

Conference Presentations (Selected)

1. **Kang He,** Xinyi Shen, Emmanouil N. Anagnostou (2021), Are snowmelt dynamics changing in recent decades? - A case study in East River, Colorado, Watershed, Abstract (C35G-0954) presented at 2021 AGU Fall Meeting, 13-17 Dec. (poster)
2. **Kang He**, Xinyi Shen, Yaprak Onat, Yan Jia, Emmanouil N. Anagnostou (2021), How much compound flood risk is increased by Urbanization and Sea Level Rise? A case study in a Connecticut coastal area, Abstract (GC35L-0831) presented at 2021 AGU Fall Meeting, 13-17 Dec. (poster)
3. **Kang He**, Xinyi Shen, Emmanouil N. Anagnostou, Cory Merow, Efthymios Nikolopoulos, Rachael Gallagher (2020), A methodology framework for predicting impact of wildfires based on 20-year historical data in Australia, Abstract (H095-07) presented at 2020 AGU Fall Meeting, 1-17 Dec. (oral)

Voluntary and Other Affiliations

- Reviewer for the Journal of Hydrology, Elsevier publishing
- American Geophysical Union (AGU)