## Lijing Wang


CONTACT INFORMATION

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ORCID: 0000-0001-8121-5465


PROFESSIONAL EXPERIENCE

**University of Connecticut**

Assistant Professor, Department of Earth Sciences 2024/08 - Present

**Lawrence Berkeley National Laboratory (LBNL)**

Affiliate Faculty, Climate & Ecosystem Science Division 2024/08 - Present
Postdoctoral Fellow, Climate & Ecosystem Science Division 2023/04 - 2024/08

EDUCATION

**Stanford University**

Ph.D. in Geological Sciences 2017/09 - 2023/04
(Now Earth and Planetary Sciences)
Ph.D. minor in Computer Science 2021/09 - 2023/04
Dissertation title: *Integrating data and models for sustainable decision-making in hydrology*
Committee: Jef Caers (Primary advisor), Kate Maher, Tapan Mukerji, Peter Kitanidis, Mykel Kochenderfer

**Peking University**

B.S. in Space Physics and Applied Mathematics 2013/09 - 2017/07

RESEARCH INTERESTS

Model-data Integration for Hydrology, Groundwater-Surface Water Interactions, Watershed Hydrology, Machine Learning for Uncertainty Quantification

BOOKS

**[1] L. Wang**, Z. Yin, J. Caers, Data Science for the Geosciences, *Cambridge University Press*, 2023

JOURNAL PUBLICATIONS

[#] Student author or mentee

**[22]** B. Zhang[#], Z. Yin, K. Gu, J. Caers, P. Bayer, B. Shi, X. Gong, **L. Wang**, Probabilistic Characterization of City Scale Subsurface Thermal Environment Heterogeneity, *Environmental Science & Technology*, 2026

**[21]** M. Field, E.J. MacKie, **L. Wang**, A. Muto, N. Shao, Improved Bathymetry Estimates Beneath Amundsen Sea Ice Shelves using a Markov Chain Monte Carlo Gravity Inversion (GravMCMC, version 1), *Geoscientific Model Development*, 2026

**[20] L. Wang**, S. Warix, R. Callahan, P. Sullivan, K. Singha, Data-model integration to unravel critical zone dynamics: challenges, successes, and future directions, *WIREs Water*, 2025

[**19**] **L. Wang**, Z. Xu, C. Wang, R. Thibaut, C. Ulrich, M. Sprenger, Y. Wu, E. King, H. Wainwright, R. W. H. Carroll, C. Beutler, K. H. Williams, B. Dafflon, The Role of Snowmelt and Subsurface Heterogeneity in Headwater Hydrology of a Mountainous Catchment in Colorado: A Model-Data Integration Approach, *Water Resources Research*, 2025

*Media coverage:* UConn Today

[**18**] **L. Wang**, T. Babey, Z. Perzan, S. Pierce, M. Briggs, K. Boye, K. Maher, Quantifying Groundwater Response and Uncertainty in Beaver-influenced Mountainous Floodplains using Machine Learning-based Model Calibration, *Water Resources Research*, 2025

*Media coverage:* UConn Today, AGU Editor's Highlight

[**17**] Z. Yin, A. Miltenberger, M. Topinka, **L. Wang**, T. Mukerji, J. Caers, Quantifying model misrepresentation in geophysical inversion for critical mineral exploration, *IEEE Transactions on Geoscience and Remote Sensing*, 2025

[**16**] C. Scheidt, L. Mathieu, Z. Yin, **L. Wang**, J. Caers, Masked Autoregressive Flow for Geochemical Anomaly Detection with Application to Li–Cs–Ta Pegmatites Exploration of the Superior Craton, Canada, *Natural Resources Research*, 2025

[**15**] T. Babey, Z. Perzan, S. Pierce, D.B. Rodgers, **L. Wang**, R. Carroll, J.R. Bargar, K. Boye, K. Maher, Mountainous floodplain connectivity in response to hydrological transitions, *Water Resources Research*, 2024

[**14**] T. Kurihana, I. Mastilovic, **L. Wang**, A. Meray, S. Praveen, Z. Xu, M. Memarzadeh, A. Lavin, H. Wainwright, Identifying climate patterns using clustering autoencoder techniques, *Artificial Intelligence for the Earth Systems*, 2024

[**13**] X. Wei, Z. Yin, C. Scheidt, K. Darnell, **L. Wang**, J. Caers, Constructing priors for geophysical inversions constrained by surface and borehole geochemistry, *Surveys in Geophysics*, 2024

[**12**] A. Ayoub, H. Wainwright, **L. Wang**, G. Sansavini, An enhanced fourier neural operator surrogate for radioactive plume transport forecasting, *Stochastic Environmental Research and Risk Assessment*, 2024.

[**11**] A. Meray*, **L. Wang***, T. Kurihana, I. Mastilovic, S. Praveen, Z. Xu, M. Memarzadeh, A. Lavin, H. Wainwright, Physics-informed surrogate modeling for supporting climate resilience at groundwater contamination sites, *Computers & Geosciences*, 2024
* co-first authors

[**10**] **L. Wang**, L. Peeters, E.J. MacKie, Z. Yin, J. Caers, Unraveling the uncertainty of geological interfaces through data-knowledge-driven trend surface analysis, *Computers & Geosciences*, 2023

[9] E.J. MacKie, M. Field, **L. Wang**, Z. Yin, N. Schoedl, M. Hibbs, A. Zhang, GStatSim V1.0: a Python package for geostatistical interpolation and simulation, *Geoscientific Model Development*, 2023

[8] **L. Wang**, H. Kim, A. V. Christiansen, B. Hansen, T. N. Vilhelmsen, J. Caers, Statistical modeling of 3D redox architecture from non-colocated redox borehole and transient electromagnetic data, *Hydrogeology Journal (SI: Geostatistics and Hydrogeology)*, 2023

[7] **L. Wang**, F. Joncour, P. Barrallon, T. Harribey, L. Castanie, S. Yousfi, S. Guillon, Semi-supervised semantic segmentation for seismic interpretation, *Geophysics*, 2023

[6] T. Hall, C. Scheidt, **L. Wang**, Z. Yin, T. Mukerji, J. Caers, Sequential value of information for subsurface exploration drilling, *Natural Resources Research*, 2022

[5] **L. Wang**, P. Kitanidis, J. Caers, Hierarchical Bayesian inversion of global variables and large-scale spatial fields, *Water Resources Research*, 2022

[4] J. Caers, C. Scheidt, Z. Yin, **L. Wang**, T. Mukerji, K. House, Efficacy of information in mineral exploration drilling, *Natural Resources Research*, 2022

[3] A. Miltenberger, S. Uhlemann, T. Mukerji, K. Williams, B. Dafflon, **L. Wang**, H. Murakami-Wainwright, Probabilistic evaluation of geoscientific hypotheses with geophysical data: application to electrical resistivity imaging of a fractured bedrock zone, *Journal of Geophysical Research - Solid Earth*, 2021

[2] E. C. Johnston, F. Davenport, **L. Wang**, J. Caers, S. Muthukrishnan, M. Burke, N. S. Diffenbaugh, Quantifying the influence of precipitation intensity on landslide hazard in urbanized and non-urbanized areas, *Geophysical Research Letters*, 2021

[1] Q. Li, **L. Wang**, Z. Perzan, J. Caers, G. Brown, J. Bargar, K. Maher, Global sensitivity analysis of a reactive transport model for mineral scale formation during hydraulic fracturing, *Environmental Engineering Science*, 2021

## Preprints

[1] A. Miltenberger, **L. Wang**, T. Mukerji, J. Caers, Formulating and solving the data-consistent geophysical inverse problem for subsurface modeling applications, EarthArXiv, 2023

## Conference Publications

[2] **L. Wang**, T. Kurihana, A. Meray, I. Mastilovic, S. Praveen, Z. Xu, M. Memarzadeh, A. Lavin, H. Murakami-Wainwright, Multi-scale Digital Twin: Developing a fast and physics-infused surrogate model for groundwater contamination with uncertain climate models, *Machine Learning and the Physical Sciences Workshop at the 36th conference on Neural Information Processing Systems*, 2022

[1] R. M. Rustowicz, R. Cheong, **L. Wang**, S. Ermon, M. Burke, D. Lobell, Semantic segmentation of crop type in Africa: A novel dataset and analysis of deep learning methods, *Proceedings of the IEEE Conference on Computer Vision and Pat-*

*tern Recognition Workshops*, 2019

## Research Grants

Total funding: $1.03M; $507,430 allocated to UConn

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|---|---|
| **[4]** *Beaver-created ecosystems as buffers of extreme hydrologic events*, $30,000<br>United States Geological Survey, Water Resources Research Act Program, Annual base (FY26, 104b), **Lijing Wang** (PI) | 2027 - 2028 (Selected) |
| **[3]** *Modernizing baseflow prediction in headwater streams using USGS Next Generation Water Observing System data, process-based modeling and machine learning*, $302,479<br>United States Geological Survey, Water Resources Research Act Program, General nationally competitive RFP (FY25, 104g), **Lijing Wang** (PI), Martin Briggs (co-PI, USGS Hydrologic Remote Sensing Branch) | 2026 - 2029 |
| **[2]** *Collaborative Research: Quantifying how groundwater modulates streamflow response to hydrologic extremes*, $698,947 ($172,951 to UConn)<br>National Science Foundation, Water, Landscape, and Critical Zone Processes (WaLCZ), Sara Warix (PI, U of Utah), **Lijing Wang** (co-PI), Laura Rademacher (co-PI, U of the Pacific) | 2025 - 2028 |
| **[1]** CLAS Strategic Initiative for Multidisciplinary Research, University of Connecticut Humanities Institute′s Human-Centered AI Team, **Lijing Wang** (key faculty), $2,000 | 2025 |

## Computing Grants

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| **[3]** *Quantifying how groundwater modulates streamflow response to hydrologic extremes.*<br>National Science Foundation, ACCESS Discover Project, 1,500,000 Credits (1 credit ≈ 1 core hour), Lijing Wang (PI) | 2025 - 2028 |
| **[2]** *Baseflow resilience to climate disturbances in mountainous headwater streams*<br>Department of Energy (DOE) Mission Science Allocation Award, NERSC, Lijing Wang (PI) | 2025 - 2026 |
| **[1]** *Developing a benchmark hydrologic dataset and a fast AI surrogate model for assessing climate impacts on mountainous hillslopes*<br>National Artificial Intelligence Research Resource (NAIRR) Pilot projects, Lijing Wang (PI) | 2024 |

MENTORING

**Ph.D. Student**:
Primary Advisor:

- Yeonju Kim, Department of Earth Sciences, University of Connecticut, 2024
  - Ph.D. candidate, May 2026 - now
  - USGS FLOW (Future Leaders in Observation of Water) Academy Summer Fellowship, 2026
- Victor Oladoja, Department of Earth Sciences, University of Connecticut, 2024
  - Ph.D. candidate, May 2026 - now
  - CUAHSI National Water Center Innovators Program Summer Institute Fellowship, 2025

Associate Advisor:

- Noah Kravette, Department of Earth Sciences, University of Connecticut, 2023
- Joshua Lee, Department of Earth Sciences, University of Connecticut, 2024
- Robert Cote, Department of Earth Sciences, University of Connecticut, 2025

**MS Student**:
Primary Advisor:

- Noah Cadwell, Department of Earth Sciences, University of Connecticut, 2026
- Alaina Foster, Department of Earth Sciences, University of Connecticut, 2026

Associate Advisor:

- Allison Rivera, Department of Earth Sciences, University of Connecticut, 2024
- Ravindi Wanshanatha, Department of Natural Resources and the Environment, University of Connecticut, 2024
- Kari Comstock, Department of Earth Sciences, University of Connecticut, 2024

**Undergraduate Student**:

- Addison Meisterling, Environmental Science, University of Connecticut, 2025
- Emily Rochette, Earth Sciences, University of Connecticut, 2025
- Jacob Gorman, Double Major in Earth Sciences and Computer Science, University of Connecticut, 2025
- Amber Caruso, Environmental Engineering, University of Connecticut, 2025
- Adam Argiro, Earth Sciences, University of Connecticut, 2025. Current Position: Master of Applied Science, Civil Engineering at Dalhousie University.

## Teaching

**Machine Learning and Numerical Modeling in Hydrology** (ERTH 4750/5750)
University of Connecticut — Spring 2026

**Introduction to Groundwater Hydrology** (ERTH 4735/5735, NRE 4135)
University of Connecticut — Fall 2024, 2025, 2026

**Machine Learning for Hydrology**
Short course, 2026 Meeting of the Northeastern Section of GSA — Mar 2026

**Machine Learning in Geosciences**
Guest Lecture, University of Texas at Arlington — Feb 2024

- Machine learning applications in geosciences
- Introduction to geostatistics

**Data Science for Geoscience** (GEOLSCI 6, GEOLSCI 240)
Teaching Assistant, Stanford University — 2019 - 2022

- Taught both graduate level ($\sim$ 40 students) and undergraduate level ($\sim$ 15 students) classes
- Developed new course materials including geoscientific data case studies, python notebooks and homework
- Mentored students to apply data science tools to their own geoscientific problems
- Designed a new textbook: Data Science for the Geosciences

## Invited Talks

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| **GSA Connects 2026** \| T104. Advances in hydrologic modeling | Oct 2026 |
| **GSA Connects 2026** \| T114. Innovations in research of groundwater-surface water interactions | Oct 2026 |
| **USGS groundwater-surface water field methods course** \| Slate River groundwater-surface water exchange and beavers | Jul 2026 |
| **2026 Women Advancing River Research Seminar Series** \| Riparian Wetlands as River Modulators Across Landscapes | Jul 2026 |
| **USGS Delaware River Basin NGWOS monthly call** \| Modernizing baseflow prediction in headwater streams using USGS Next Generation Water Observing System data, process-based modeling and machine learning | Jul 2026 |
| **Beaver Institute** \| Beaver Science Speaker Series | Jul 2026 |
| **University of Massachusetts, Amherst** \| Department Seminar, Department of Civil and Environmental Engineering | May 2026 |
| **Syracuse University** \| K. Douglas Nelson Lecture Series, Department of Earth and Environmental Sciences | Mar 2026 |
| **AGU Fall Meeting** \| Advancing Prediction, Theory, and Causal Understanding in Geosciences Through AI and Big Data | Dec 2025 |
| **Massachusetts Institute of Technology** \| Computational Science and Engineering Community Seminar | Oct 2025 |
| **Stony Brook University** \| Department of Geosciences Colloquium | Apr 2025 |
| **Early Career Critical Zone Research Coordination Network Workshop** | Mar 2025 |
| **Society of Exploration Geophysicists** \| Workshop: Improving Understanding and Treatment of Uncertainty in Groundwater Science and Management | Feb 2025 |
| **University of Connecticut** \| Global Environmental Remote Sensing Laboratory, Department of Natural Resources and the Environment | Oct 2024 |
| **University of Arizona** \| Department of Hydrology and Atmospheric Sciences Seminar | Apr 2023 |
| **SLAC National Accelerator Laboratory** \| Environmental Geochemistry Group Research Talk | Mar 2023 |
| **University of Connecticut** \| Department of Earth Sciences Seminar | Feb 2023 |
| **University of Florida** \| Department of Geological Sciences Seminar | Jan 2023 |

## Honors and Awards

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| 2025 PROSE book awards of Association of American Publishers, Earth Science Category Winner | 2025 |
| Andrei Borisovich Vistelius Research Award, International Association for Mathematical Geosciences | 2025 |
| Early Career Geoscience Faculty Workshop Travel Fund ($1,600), Saint Paul, MN | 2024 |
| Outstanding Graduate Student Award ($1,000): In recognition of exceptional scholarship and research accomplishments in the Department of Earth and Planetary Sciences, Stanford University | 2023 |
| Unexpected Discovery Innovation Award, Frontier Development Lab: Using sensitivity analysis to improve physical simulations' accuracy | 2022 |
| Stanford Data Science Scholars Program Fellowship ($100,000): Awarded to Stanford Ph.D. students who are involved in the challenging use of data science at the frontiers of their research, 11 awardees out of 151 applications | 2020 - 2022 |
| Geological Sciences Department Travel Fund | 2021, 2022 |
| Society for Industrial and Applied Mathematics (SIAM) Travel Awards | 2021 |
| Harriet Benson Fellowship Award ($5,000): honors exceptional scholarship and research accomplishments by graduate students in the Department of Geological Sciences, Stanford University | 2020 |
| 2nd Prize in Stanford Big Earth Hackathon | 2018 |
| Meritorious in COMAP's Mathematical Contest in Modeling | 2016 |
| Houston BAA Scholarship | 2016 |
| Guanghua Scholarship | 2014, 2015 |
| Dean's list in School of Science, HKUST | 2014 |

## Service

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| UConn CLAS AI Committee | 2026 - present |
| UConn CLAS Scholarship Selection Committee | 2025 - 2026 |
| UConn Graduate School, Network for Enriched Mentorship mentor | 2024 - present |
| Graduate and Merit Committee: UConn Earth Sciences | 2025 - 2026 |
| Search and Award Committee: UConn Earth Sciences | 2024 - 2025 |
| Primary convener/session chair: Machine Learning and Data Assimilation for Terrestrial Hydrologic Modeling and Discovery, *AGU Fall Meeting* | 2022 - 2026 |
| Convener: Diagnostics, Sensitivity, and Uncertainty Analysis of Earth and Environmental Models, *AGU Fall Meeting* | 2024 |
| Associate Editor, Artificial Intelligence for the Earth Systems | 2026 - present |
| Editorial Board, Applied Computing and Geosciences | 2025 - present |
| Guest Associate Editor, Special Issue: Advances in Geostatistical Learning, Frontiers in Applied Mathematics and Statistics | 2024 |
| Grant Reviewer (Adhoc and Panel): National Scientific Foundation | 2023 - 2026 |
| Grant Reviewer (Adhoc): United States Geological Survey | 2024 |
| Grant Reviewer (Panel): NASA Water and Energy Cycle Program | 2024 |
| AGU Hydrologic Uncertainty Technical Committee | 2023 - 2025 |
| Reviewer: Water Resources Research, Advanced in Water Resources, Journal of Hydrology, Journal of Geophysical Research: Machine Learning and Computation, Hydrology and Earth System Sciences, Environmental Science & Technology, Hydrogeology Journal, Computers & Geosciences, Mathematical Geosciences, Engineering Geology, Geophysics, Scientific Reports, Transport in Porous Media, Applied Computing and Geosciences | |
| Core Knowledge and Skills Working Group (>250 Hydrogeologists): Hydrogeologist Modeling Group 2 Lead | 2024 - present |
| Co-lead, East Coast Beaver Network, Beaver Institute | 2025 - present |
| Mentor (3 mentees), 2024 Data-Model Integration Meeting at Mines | 2024 |
| Organizing committee, AI for Science: The Reach and Limits of AI for Scientific Discovery, *Neural Information Processing Systems Workshop (NeurIPS 2025)* | 2025 |
| Organizing committee, AI for Scientific Discovery: From Theory to Practice, *Neural Information Processing Systems Workshop (NeurIPS 2023)* | 2023 |
| Stanford Data Science Scholar Blog: Introduction to Spatial Data Analysis | 2022 |
| Student DEI leader representative, Stanford Earth | 2021 - 2022 |
| Technical mentor, Data Science for Social Good Summer Program, Stanford University | 2021 |
| Graduate panelist for Stanford Earth IDEAL (Inclusion, Diversity, Equity, and Access) faculty search | 2021 |
| Co-president in Association of Chinese Students and Scholars at Stanford | 2019 - 2020 |
| Student organizing committee, Women in Data Science (WiDS) at Stanford Earth | 2019 |

## Presentation and Poster

* Graduate Student

**[39]** V. Oladoja*, **L. Wang**, S. Warix, Sensitivity of headwater watershed hydrology to subsurface properties and their spatial heterogeneity, *GSA 2026* [Presentation]

**[38]** Y. Kim*, **L. Wang**, M. Briggs, A. Tucker, Beaver-Induced Groundwater-Surface Water Interactions in Southern New England Wetlands, *BeaverCon 2026* [Poster]

**[37]** V. Oladoja*, **L. Wang**, S. Warix, Comparing Geophysics-Informed and Community Dataset Depth to Bedrock Estimates for Headwater Hydrologic Modeling, *SEG Hydrogeophysics Workshop, Boise, Idaho, USA, 2026* [Poster]

**[36]** V. Oladoja*, **L. Wang**, S. Warix, M. Huang, Quantifying how subsurface properties modulate groundwater contributions to headwater streamflow using a model-data integration approach, *American Geophysical Union, Fall Meeting 2025* [Poster]

**[35]** Y. Kim*, **L. Wang**, M. Briggs, A. Argiro, Beaver-Induced Groundwater-Surface Water Interactions in Southern New England Wetlands: A Model-data Integration Approach, *American Geophysical Union, Fall Meeting 2025* [Poster]

**[34]** **L. Wang**, Z. Xu, C. Wang, R. Thibaut, C. Ulrich, M. Sprenger, Y. Wu, E. King, H. Wainwright, R. W. H. Carroll, C. Beutler, K. H. Williams, B. Dafflon, The Role of Snowmelt and Subsurface Heterogeneity in Headwater Hydrology of a Mountainous Catchment in Colorado: A Model-Data Integration Approach, *Gordon Research Conference, Catchment Science: Interactions of Hydrology, Biology and Geochemistry* [Poster]

**[33]** V. Oladoja*, **L. Wang**, Using Temporal Graph Neural Networks to Enhance Understanding of Subsurface Properties' Controls on Headwater Streams, *NAIRR Pilot Annual Meeting 2025* [Poster]

**[32]** M. Field, E. Mackie, A. Muto, **L. Wang**, N.Shao, Probabilistic Gravity Inversion of Sub-ice-shelf Bathymetry in West Antarctica for Improved Uncertainty Quantification, *American Geophysical Union, Fall Meeting 2024* [Poster]

**[31]** E. King, H. Wainwright, M. Newcomer, **L. Wang**, N. Falco, E. Brodie, From Bedrock to Canopy: Investigating Impacts of Trait Co-variability on Hydrologic-Biogeochemical Processes Across Two Contrasting Rocky Mountain Watersheds, *American Geophysical Union, Fall Meeting 2024* [Poster]

**[30]** **L. Wang**, T. Babey, Z. Perzan, S. Pierce, K. Boye, K. Maher, The Influence of Floodplain Architecture on Groundwater Responses to Beaver-Induced Inundation, *American Geophysical Union, Fall Meeting 2024* [Oral]

**[29]** **L. Wang**, Z. Xu, C. Wang, R. Thibaut, C. Ulrich, M. Sprenger, S. Uhlemann, Y. Wu, E. King, H. Wainwright, B. Dafflon, Quantifying the Impacts of Snow Dynamics and Subsurface Structure on Hydrology in Mountainous Hillslopes Through Field and Modeling Investigations, *American Geophysical Union, Fall Meeting 2024* [Poster]

[28] **L. Wang**, T. Babey, Z. Perzan, S. Pierce, K. Boye, K. Maher, the Influence of Floodplain Structure on Local and Regional Hydrologic Responses to Beaver-Induced Inundation, *ModFlow and More 24* [Oral]

[27] **L. Wang**, Z. Xu, C. Wang, R. Thibaut, C. Ulrich, M. Sprenger, S. Uhlemann, Y. Wu, E. King, H. Wainwright, B. Dafflon, Identifying Representative Traits in Mountainous Hillslopes through Hydrologic Modeling and Data Integration, *ModFlow and More 24* [Oral]

[26] L. Stolze*, **L. Wang***, Z. Xu, B. Dafflon, B. Arora, D. Dwivedi, C. Steefel, R. Thibaut, M. Sprenger, S. Uhlemann, C. Wang, Y. Wu, H. Wainwright, K. Boye, N. Falco, C. Ulrich, W. Dong, M. Bill, C. Beutler, B. Gilbert, K. Williams, M. Newcomer, Model-based interpretation of hydrological and biogeochemical functional traits of hillslopes in a mountainous watershed, *Principal Investigators Meeting of the Department of Energy's Environmental System Science (ESS) Program, 2024 (ESS PI Meeting)* [Poster]

[25] **L. Wang**, T. Babey, Z. Perzan, S. Pierce, K. Boye, K. Maher, Modeling the impact of engineered ponding on floodplain hydrologic flow paths and solute transport, *Principal Investigators Meeting of the Department of Energy's Environmental System Science (ESS) Program, 2024 (ESS PI Meeting)* [Poster]

[24] **L. Wang**, Z. Xu, R. Thibaut, C. Wang, M. Sprenger, S. Uhlemann, E. Smith, C. Ulrich, Y. Wu, H. Wainwright, K. Williams, B. Dafflon, Towards scaling up watershed modeling: Identifying representative traits in mountainous hillslopes through hydrologic modeling and data integration, *American Geophysical Union, Fall Meeting 2023* [Poster]

[23] K. Maher, T. Babey, **L. Wang**, K. Boye, Scaling water and nutrient exchanges across floodplain interfaces in headwater catchments, *American Geophysical Union, Fall Meeting 2023* [Oral]

[22] E.J. MacKie, M. Field, N. Schoedl, **L. Wang**, Z. Yin, A. Zhang, M. Gravey, GStatSim: a FAIR geostatistics software package in Python, *American Geophysical Union, Fall Meeting 2023* [Oral]

[21] S. Praveen, Z. Xu, H. Wainwright, **L. Wang**, A. Meray, Tackling Environmental Challenges with 3D Surrogate Models: Groundwater Contamination Prediction, *American Geophysical Union, Fall Meeting 2023* [Poster]

[20] X. Wei, Z. Yin, C. Scheidt, K. Darnell, **L. Wang**, J. Caers, Quantifying uncertainty for sediment-hosted mineral deposits using multiple geoscientific observations and Bayesian evidential learning, *American Geophysical Union, Fall Meeting 2023* [Poster]

[19] **L. Wang**, T. Kurihana, A. Meray, I. Mastilovic, S. Praveen, Z. Xu, M. Memarzadeh, A. Lavin, H. Wainwright, Physics-informed surrogate modeling for supporting climate resilience at groundwater contamination sites, Technical Session: Artificial Intelli-

gence/Machine Learning-Empowered Digitization of Environmental Systems, *RemPlex 2023 Global Summit* [Oral]

**[18] L. Wang**, T. Kurihana, A. Meray, I. Mastilovic, S. Praveen, Z. Xu, M. Memarzadeh, A. Lavin, H. Wainwright, Physics-informed surrogate modeling for supporting climate resilience at groundwater contamination sites, *HydroML 2023 symposium* [Plenary eLightning Talk]

**[17] L. Wang**, C. Scheidt, Z. Yin, K. Maher, J. Caers, Parameter inversion with sequential neural density estimators: an enhanced machine learning-based inversion, *American Geophysical Union, Fall Meeting 2022* [Poster]

**[16] L. Wang**, T. Kurihana, A. Meray, I. Mastilovic, S. Praveen, Z. Xu, M. Memarzadeh, A. Lavin, H. Wainwright, Physics-informed surrogate modeling for supporting climate resilience at groundwater contamination sites, *American Geophysical Union, Fall Meeting 2022* [Poster]

**[15]** E.J. MacKie, **L. Wang**, Z. Yin, A. Zhang, N. Schoedl, GlacierStats geostatistical software for modeling ice sheet conditions, *American Geophysical Union, Fall Meeting 2022* [Poster]

**[14]** Q. Li, K. Maher, **L. Wang**, J. Caers, A shale-water interaction model and its sensitivity to each input parameter over the entire domain, *American Geophysical Union, Fall Meeting 2022* [Oral]

**[13] L. Wang**, T. Kurihana, A. Meray, I. Mastilovic, S. Praveen, Z. Xu, M. Memarzadeh, A. Lavin, H. Wainwright, Multi-scale Digital Twin: Developing a fast and physics-infused surrogate model for groundwater contamination with uncertain climate models, *Machine Learning and the Physical Sciences Workshop at the 36th conference on Neural Information Processing Systems* [Poster]

**[12] L. Wang**, T. Kurihana, A. Meray, I. Mastilovic, S. Praveen, Z. Xu, M. Memarzadeh, A. Lavin, H. Wainwright, Physics-informed surrogate modeling for supporting climate resilience at groundwater contamination sites, *Frontier Development Lab 2022 Live Showcase* [Oral]

**[11] L. Wang**, Z. Perzan, T. Babey, M. Briggs, S. Pierce, B. Rogers, J. Bargar, K. Maher, Uncertainty quantification of water exchanges due to beaver-induced inundation, *American Geophysical Union, Fall Meeting 2021* [Oral]

**[10]** E.J. MacKie, **L. Wang**, D.M. Schroeder, C. Zuo, Z. Yin, J. Caers, M. Hibbs, The parallel worlds of DEMOGORGN Greenland, *American Geophysical Union, Fall Meeting 2021* [Oral]

**[9]** T. Babey, Z. Perzan, B. Rogers, **L. Wang**, S. Pierce, J. Bargar, K. Maher, Hydro-biogeochemical response of oxic-anoxic interfaces to beaver dam construction in a simulated floodplain aquifer, *American Geophysical Union, Fall Meeting 2021* [Poster]

[8] **L. Wang**, L. Peeters, J. Caers, Quantifying uncertainty of non-stationary geological interfaces: Metropolis-Hasting sampling of implicit level sets, *SIAM Conference on Mathematical & Computational Issues in the Geosciences, 2021* [Oral]

[7] **L. Wang**, T. N. Vilhelmsen, J. Caers, Local decision making through understanding of multi-scale uncertainty: Application to well catchment protections in Denmark *Computational Methods in Water Resources, 2020* [Oral]

[6] **L. Wang**, L. Peeters, J. Caers, Uncertainty assessment of hydrogeological structures combining geophysical survey and geological knowledge: A stochastic level set optimization framework, *American Geophysical Union, Fall Meeting 2020* [Oral]

[5] **L. Wang**, T. N. Vilhelmsen, J. Caers, Direct forecasting of local hydraulic conductivity using combined geophysical and hydrological data: Application to well catchment predictions in Danish aquifer system, *American Geophysical Union, Fall Meeting 2019* [Poster]

[4] **L. Wang**, T. N. Vilhelmsen, J. Caers, Joint Uncertainty Quantification on Spatial and Global Hydrogeological Models: An Application to Danish Groundwater Management, *American Geophysical Union, Fall Meeting 2018* [Poster]

[3] E. C. Johnston, J. Caers, **L. Wang**, F. Davenport, S. Muthukrishnan, N. S. Diffenbaugh, Multi-scale signatures of climate change on landslide susceptibility: a case study for the Pacific Coast of the United States, *American Geophysical Union, Fall Meeting 2018* [Poster]

[2] **L. Wang**, O. Grujic, J. Caers, Reconstruction and Forecasting Oil Rates Using Functional Data Analysis and Universal Co-Kriging, *NGI Industrial Affiliates Meeting, Stanford University, 2017* [Poster]

[1] **L. Wang**, O. Grujic, J. Caers, Statistical Learning on Incomplete Production Profiles of Unconventional Reservoirs, *NGI Industrial Affiliates Meeting, Stanford University, 2016* [Poster]