

Lijing Wang

CONTACT INFORMATION	354 Mansfield Road, Storrs, CT lijingwang.github.io	lijing.wang@uconn.edu, lijingwang@lbl.gov ORCID: 0000-0001-8121-5465
PROFESSIONAL EXPERIENCE	University of Connecticut Assistant Professor, Department of Earth Sciences2024/08 - Present	
	Lawrence Berkeley National Laboratory (LBNL) Affiliate Faculty, Climate & Ecosystem Science Division2024/08 - Present Postdoctoral Fellow, Climate & Ecosystem Science Division2023/04 - 2024/08	
EDUCATION	Stanford University Ph.D. in Geological Sciences2017/09 - 2023/04 (Now Earth and Planetary Sciences) Ph.D. minor in Computer Science2021/09 - 2023/04 Dissertation title: <i>Integrating data and models for sustainable decision-making in hydrology</i> Committee: Jef Caers (Primary advisor), Kate Maher, Tapan Mukerji, Peter Kitanidis, Mykel Kochenderfer	
	Peking University B.S. in Space Physics and Applied Mathematics2013/09 - 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, <i>Cambridge University Press</i> , 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, <i>Environmental Science & Technology</i> , 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), <i>Geoscientific Model Development</i> , 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, <i>WIREs Water</i> , 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-*

RESEARCH
GRANTS

Total funding: \$1M; \$477,430 allocated to UConn

- [3] *Modernizing baseflow prediction in headwater streams using USGS Next Generation Water Observing System data, process-based modeling and machine learning*, \$302,479 2026 - 2029
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)
- [2] *Collaborative Research: Quantifying how groundwater modulates streamflow response to hydrologic extremes*, \$698,947 (\$172,951 to UConn) 2025 - 2028
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)
- [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

- [3] *Quantifying how groundwater modulates streamflow response to hydrologic extremes.* 2025 - 2028
National Science Foundation, ACCESS Discover Project, 750,000 Credits (1 credit $\approx$ 1 core hour), Lijing Wang (PI)
- [2] *Baseflow resilience to climate disturbances in mountainous headwater streams* 2025 - 2026
Department of Energy (DOE) Mission Science Allocation Award, NERSC, Lijing Wang (PI)
- [1] *Developing a benchmark hydrologic dataset and a fast AI surrogate model for assessing climate impacts on mountainous hillslopes* 2024
National Artificial Intelligence Research Resource (NAIRR) Pilot projects, Lijing Wang (PI)

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
 - BeaverCON 2026 Scholarship, \$600
- 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:

- 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 (~ 40 students) and undergraduate level (~ 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	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	2025 PROSE book awards of Association of American Publishers, Earth Science Category Winner	2025
	Andrei Borisovich Vistelius Research Award, International Association for Mathematical Geosciences	2024
	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	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, <i>AGU Fall Meeting</i>	2022 - 2026
	Convener: Diagnostics, Sensitivity, and Uncertainty Analysis of Earth and Environmental Models, <i>AGU Fall Meeting</i>	2024
	Editorial Board, Applied Computing and Geosciences	2025 - present
	Guest Associate Editor, Special Issue: Advances in Geostatistical Learning, <i>Frontiers in Applied Mathematics and Statistics</i>	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, <i>Neural Information Processing Systems Workshop (NeurIPS 2025)</i>	2025
	Organizing committee, AI for Scientific Discovery: From Theory to Practice, <i>Neural Information Processing Systems Workshop (NeurIPS 2023)</i>	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

- [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 Intelligence/Machine Learning-Empowered Digitization of Environmental Systems, *Rem-Plex 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]