William Kleiber			
Department of Applied Mathematics UCB 526 University of Colorado Boulder, CO 80309-0526	Office Phone E-mail Webpage	(303) 492-4273 william.kleiber@colorad amath.colorado.edu/facu	o.edu lty/kleiberw
Research Interests			
Spatial statistics; Statistical climatology; Computer experiments; Calibration, emu	Renewable ene lation and valid	rgy science; Stochastic weath ation	her generators;
Positions			
ASSOCIATE PROFESSOR, Department of University of Colorado, Boulder, CO	Applied Mathen	natics,	2019 - Present
GRADUATE PROGRAM DIRECTOR, Depa University of Colorado, Boulder, CO	rtment of Applie	ed Mathematics,	2020 - 2023
VISITING DATA SCIENTIST, Jupiter Intel	ligence, Boulder	, CO	2019 - 2020
ASSISTANT PROFESSOR, Department of A University of Colorado, Boulder, CO	Applied Mathem	natics,	2012 - 2019
Professeur Invité (Chair Henri Lei Rennes, France	BESGUE), Unive	rsité de Rennes,	2016
Post-graduate Scientist, National C Institute for Mathematics Applied to Geo	enter for Atmos osciences, Bould	pheric Research, er, CO	2010 - 2012
Education			
UNIVERSITY OF WASHINGTON, Seattle, W Ph.D. in Statistics Department of Statistics Advisors: Tilmann Gneiting and Adrian Rad	WA		2010
UNIVERSITY OF IOWA, Iowa City, IA B.S. in Mathematics Graduation with Honors and Distinction			2006
Academic Honors, Awards & Sc	HOLARSHIPS		
NPG PAPER OF THE MONTH AWARD "Beyond univariate calibration: Verifying sp of Nonlinear Processes in Geophysics for the	atial structure in paper of the mo	ensembles of forecast fields" ch nth, October, 2020.	Oct 2020 losen by Editors
FACULTY LEADERSHIP INSTITUTE CLASS Elected member of a group of 15 new leader	s of 2020 s on campus for t	he Faculty Leadership Institute	2020 e
Young Investigator Award, Section American Statistical Association	on Statistics and	d the Environment,	2016

 LEBESGUE CHAIR, Centre Henri Lebesgue, France
 2016

 Elected as a Junior Lebesgue Chair: an invited visiting international professorship
 2016

JASA FEATURED ARTICLE Dec 2011 "Geostatistical Model Averaging for Locally Calibrated Probabilistic Quantitative Precipitation Forecast-

ing" chosen by Editors of the Journal of the American Statistical Association as a Featured Article for the December, 2011 issue of JASA

Z.W. BIRNBAUM AWARD, University of Washington 2009 Annual award for best General Examination in the Department of Statistics

NSF VERTICAL INTEGRATION OF RESEARCH AND EDUCATION (VIGRE) FELLOWSHIP

Sep 2006 – Sep 2008

PUBLICATIONS (* INDICATES STUDENT)

- 55. Bair, E. H., Dozier, J., Rittger, K., Stillinger, T., Kleiber, W. and Davis, R. E. (2023). "How do tradeoffs in satellite spatial and temporal resolution impact snow water equivalent reconstruction?" *The Cryosphere*, **17**, 2629–2643, doi:10.5194/tc-17-2629-2023.
- 54. Ossandon*, A., Rajagopalan, B. and Kleiber, W. (2023). "Forecasting magnitude and frequency of seasonal streamflow extremes using a Bayesian hierarchical framework." *Water Resources Research*, 59, e2022WR033194, doi:10.1029/2022WR033194.
- 53. Berry*, C. and Kleiber, W. (2023). "Deep variance gamma processes." Stat, 12, e580, doi:10.1002/sta4.580.
- Berry^{*}, C., Kleiber, W. and Hodge, B.M. (2023). "Subordinated Gaussian processes for solar irradiance." Environmetrics, 34, e2800, doi:10.1002/env.2800.
- Krock^{*}, M., Kleiber, W., Hammerling, D. and Becker, S. (2023). "Modeling massive highly-multivariate nonstationary spatial data with the basis graphical lasso." *Journal of Computational and Graphical Statistics*, doi:10.1080/10618600.2023.2174126.
- Kleiber, W., Sain, S., Madaus, L. and Harr, P. (2023). "Stochastic tropical cyclone precipitation field generation." *Environmetrics*, 34, e2766, doi:10.1002/env.2766.
- Honeyman^{*}, A., Fegel, T., Peel, H., Masters, N., Vuono, D., Kleiber, W., Rhoades, C. and Spear, J. (2022). "Statistical learning and uncommon soil microbiota explain biogeochemical responses after wildfire." *Applied and Environmental Microbiology*, 88, e0034322, doi:10.1128/aem.00343-22.
- Ossandon^{*}, A., Brunner, M. I., Rajagopalan, B. and Kleiber, W. (2022). "A space-time Bayesian hierarchical modeling framework for projection of seasonal maximum streamflow." *Hydrology and Earth* System Sciences, 26, 149–166, doi:10.5194/hess-26-149-2022.
- 47. Zhang^{*}, W., Kleiber, W., Hodge, B. M. and Mather, B. (2022). "A nonstationary and non-Gaussian moving average model for solar irradiance." *Environmetrics*, **33**, e2712, doi:10.1002/env.2712.
- Stanley^{*}, Z., Grooms, I. and Kleiber, W. (2021). "Multivariate localization functions for strongly coupled data assimilation in the bivariate Lorenz 96 system." Nonlinear Processes in Geophysics, 28, 565–583, doi:10.5194/npg-28-565-2021.
- 45. Rittger, K., Krock^{*}, M., Kleiber, W., Bair, E., Brodzik, M.J., Stephenson, T., Rajagopalan, B., Bormann, K. J. and Painter, T.H. (2021). "Multi-sensor fusion using random forests for daily fractional snow cover at 30 m." *Remote Sensing of Environment*, **264**, 112608, doi:10.1016/j.rse.2021.112608.
- Ossandon^{*}, A., Rajagopalan, B. and Kleiber, W. (2021). "Spatial-temporal multivariate semi-Bayesian hierarchical framework for extreme precipitation frequency analysis." *Journal of Hydrology*, 600, 126499, doi:10.1016/j.jhydrol.2021.126499.
- 43. Shields, M., Beiter, P. and Kleiber, W. (2021). "Spatial impacts of technological innovations on the levelized cost of energy for offshore wind power plants in the United States." Sustainable Energy Technologies and Assessments, 45, 101059, doi:10.1016/j.seta.2021.101059.
- 42. Wiens^{*}, A., Kleiber, W., Nychka, D. and Barnhart, K.R. (2021). "Nonrigid registration using Gaussian processes and local likelihood estimation." *Mathematical Geosciences*, doi:10.1007/s11004-020-09917-7.
- Krock^{*}, M., Kleiber, W. and Becker, S. (2021). "Nonstationary modeling with sparsity for spatial data via the basis graphical lasso." *Journal of Computational and Graphical Statistics*, **30**, 375–389, doi:10.1080/10618600.2020.1811103.
- Doubleday^{*}, K., Jascourt, S., Kleiber, W. and Hodge, B. M. (2021). "Probabilistic solar power forecasting using Bayesian model averaging." *IEEE Transactions on Sustainable Energy*, **12**, 325–337.
- 39. Stanley*, Z., Grooms, I., Kleiber, W., Bachman, S. D., Castruccio, F. and Adcroft, A. (2020). "Parameterizing the impact of unresolved temperature variability on the large scale density field. Part I: Theory." Journal of Advances in Modeling Earth Systems, doi:10.1029/2020MS002185.

- Horvath^{*}, S., Stroeve, J., Rajagopalan, B. and Kleiber, W. (2020). "A Bayesian logistic regression for probabilistic forecasts of the minimum September Arctic sea ice cover." *Earth and Space Science*, 7, doi:10.1029/2020EA001176.
- 37. Wiens^{*}, A., Nychka, D. and Kleiber, W. (2020). "Modeling spatial data using local likelihood estimation and a Matérn to spatial autoregressive translation." *Environmetrics*, doi:10.1002/env.2652.
- 36. Jacobson^{*}, J., Kleiber, W., Scheuerer, M. and Bellier, J. (2020). "Beyond univariate calibration: Verifying spatial structure in ensembles of forecast fields." *Nonlinear Processes in Geophysics*, **27**, 411–427.
- North^{*}, J., Stanley^{*}, Z., Kleiber, W., Deierling, W., Gilleland, E. and Steiner, M. (2020). "A statistical approach to fast nowcasting of lightning potential fields." Advances in Statistical Climatology, Meteorology and Oceanography, 6, 79–90.
- 34. Raseman^{*}, W. J., Rajagopalan, B., Kasprzyk, J. R. and Kleiber, W. (2020). "Nearest neighbor time series bootstrap for generating influent water quality scenarios." *Stochastic Environmental Research and Risk Assessment*, 34, 23–31.
- Wiens^{*}, A., Kleiber, W., Barnhart, K. R. and Sain^{*}, D. (2020). "Surface estimation for multiple misaligned point sets." *Mathematical Geosciences*, 52, 527–542.
- Verdin, A., Rajagopalan, B., Kleiber, W., Podestá, G. and Bert, F. (2019). "BayGEN: A Bayesian space-time stochastic weather generator." *Water Resources Research*, 55, 2900–2915.
- Kleiber, W., Nychka, D. and Bandyopadhyay, S. (2019). "A model for large multivariate spatial data sets." *Statistica Sinica*, 29, 1085–1104.
- Grooms, I. and Kleiber, W. (2019). "Diagnosing, modeling, and testing a multiplicative stochastic Gent-McWilliams parameterization." Ocean Modelling, 133, 1–10.
- 29. Zhang^{*}, W., Kleiber, W., Florita, A.R., Hodge, B.M. and Mather, B. (2019). "Modeling and simulation of high frequency solar irradiance." *IEEE Journal of Photovoltaics*, 9, 124–131.
- Zhang^{*}, W., Kleiber, W., Florita, A.R., Hodge, B.M. and Mather, B. (2018). "A stochastic downscaling approach for generating high-frequency solar irradiance scenarios." *Solar Energy*, **176**, 370–379.
- 27. Robinson^{*}, G., Grooms, I. and Kleiber, W. (2018). "Improving particle filter performance by smoothing observations." *Monthly Weather Review*, **146**, 2433–2446.
- Verdin, A., Rajagopalan, B., Kleiber, W., Podestá, G. and Bert, F. (2018). "A conditional stochastic weather generator for seasonal to multi-decadal simulations." *Journal of Hydrology*, 556, 835–846.
- Wong^{*}, T., Kleiber, W. and Noone, D. (2017). "The impact of error accounting in a Bayesian approach to calibrating modeled turbulent fluxes in an open-canopy forest." *Journal of Hydrometeorology*, 18, 2029–2042.
- 24. Kleiber, W. (2017). "Coherence for multivariate random fields." Statistica Sinica, 27, 1675–1697.
- 23. Laga*, I. and Kleiber, W. (2017). "The modified Matérn process." Stat, 6, 241-247.
- Olson^{*}, B. and Kleiber, W. (2017). "Approximate Bayesian computation methods for daily spatiotemporal precipitation occurrence simulation." Water Resources Research, 53, 3352–3372.
- Bracken^{*}, C., Rajagopalan, B., Cheng, L, Kleiber, W. and Gangopadhyay, S. (2016). "Spatial Bayesian hierarchical modeling of precipitation extremes over a large domain." *Water Resources Research*, 52, 6643–6655.
- 20. Kleiber, W. (2016). "High resolution simulation of nonstationary Gaussian random fields." Computational Statistics and Data Analysis, **101**, 277–288.
- Kleiber, W., Hendershott^{*}, B., Sain, S. and Wiltberger, M. (2016). "Feature-based validation of the Lyon-Fedder-Mobarry magnetohydrodynamical model." *Journal of Geophysical Research: Space Physics*, **121**, 1192–1200.
- Verdin^{*}, A., Funk, C., Rajagopalan, B. and Kleiber, W. (2016). "Kriging and local polynomial methods for blending satellite-derived and gauge precipitation estimates to support hydrologic early warning systems." *IEEE Transactions on Geoscience and Remote Sensing*, 54, 2552–2562.
- Genton, M.G. and Kleiber, W. (2015). "Cross-covariance functions for multivariate geostatistics. (With discussion)." *Statistical Science*, **30**, 147–163.
- 16. Hering, H., Kazor, K. and Kleiber, W. (2015). "A Markov-switching vector autoregressive stochastic wind generator for multiple spatial and temporal scales." *Resources*, **4**, 70–92.
- 15. Kleiber, W. and Nychka, D. (2015). "Equivalent kriging." Spatial Statistics, 12, 31–49.
- 14. Verdin^{*}, A., Rajagopalan, B., Kleiber, W. and Funk, C. (2015). "A Bayesian kriging approach for blending satellite and ground precipitation observations." *Water Resources Research*, **51**, 908–921.

- Kleiber, W. and Porcu, E. (2015). "Nonstationary matrix covariances: compact support, long range dependence and quasi-arithmetic constructions." *Stochastic Environmental Research and Risk Assessment*, 29, 193–204.
- Verdin^{*}, A., Rajagopalan, B., Kleiber, W. and Katz, R. W. (2015). "Coupled stochastic weather generation using spatial and generalized linear models." *Stochastic Environmental Research and Risk* Assessment, 29, 347–356.
- Heaton, M.J., Kleiber, W., Sain, S.R. and Wiltberger, M. (2015). "Emulating and calibrating the multiple-fidelity Lyon-Fedder-Mobarry magnetosphere-ionosphere coupled computer model." *Journal of* the Royal Statistical Society, Series C, 64, 93–113.
- Kleiber, W., Sain, S. and Wiltberger, M. (2014). "Model calibration via deformation." SIAM/ASA Journal on Uncertainty Quantification, 2, 545–563.
- Kleiber, W., Sain, S.R., Heaton, M.J., Wiltberger, M., Reese, C.S. and Bingham, D. (2013). "Parameter tuning for a multi-fidelity dynamical model of the magnetosphere." *Annals of Applied Statistics*, 7, 1286– 1310.
- Kleiber, W., Katz, R.W. and Rajagopalan, B. (2013). "Daily minimum and maximum temperature simulation over complex terrain." Annals of Applied Statistics, 7, 588–612.
- Kleiber, W. and Genton, M.G. (2013). "Spatially varying cross-correlation coefficients in the presence of nugget effects." *Biometrika*, 100, 213–200.
- Kleiber, W. and Nychka, D. (2012). "Nonstationary modeling for multivariate spatial processes." Journal of Multivariate Analysis, 112, 76–91.
- Kleiber, W., Katz, R.W. and Rajagopalan, B. (2012). "Daily spatio-temporal precipitation simulation using latent and transformed Gaussian processes." *Water Resources Research*, 48, doi:10.1029/2011WR011105.
- Kleiber, W., Raftery, A.E. and Gneiting, T. (2011). "Geostatistical model averaging for locally calibrated probabilistic quantitative precipitation forecasting." *Journal of the American Statistical Association*, **106**, 1291–1303 (Featured Article).
- Kleiber, W., Raftery, A.E., Baars, J., Gneiting, T., Mass, C.F. and Grimit, E. (2011). "Locally calibrated probabilistic forecasting using geostatistical model averaging and local Bayesian model averaging." Monthly Weather Review, 139, 2630–2649.
- Gneiting, T., Kleiber, W. and Schlather, M. (2010). "Matérn cross-covariance functions for multivariate random fields." *Journal of the American Statistical Association*, 105, 1167–1177.
- Cederberg, J., Nichol, J., Frodermann, E., Tollerud, H., Hilk, G., Buysman, J., Kleiber, W., Bongard, M., Ward, J., Huber, K., Khanna, T., Randolph, J. and Nitz, D. (2005). "An anomaly in the isotopomer shift of the hyperfine spectrum of LiI." *Journal of Chemical Physics*, **123**, 134321.

PROFESSIONAL SERVICE

Associate Editor Environmetrics	2018 - Present
GRANT REVIEWER Swiss National Science Foundation	2023
LOCAL ORGANIZING COMMITTEE MEMBER 2023 International Indian Statistical Association Conference, Golden, CO	2023
SCIENTIFIC CO-CHAIR Conference on Spatial Statistics: Climate and the Environment, Boulder, CO	Jul 2023
INVITED SESSION CO-ORGANIZER Joint Statistical Meetings, Washington DC	Aug 2022
INVITED SESSION ORGANIZER ASA Section on Statistics and the Environment Workshop, Provo, UT	Oct 2022
INVITED SESSION ORGANIZER Joint Statistical Meetings, Washington, DC	Aug 2022
PUBLICATIONS OFFICER Section on Statistics and the Environment, American Statistical Association	2021 - 2022

GRANT REVIEWER National Science Foundation	2020
INVITED SESSION ORGANIZER Joint Statistical Meetings, Philadelphia, PA	Aug 2020
INVITED SESSION CHAIR Joint Statistical Meetings, Denver, CO	Jul 2019
PUBLICATIONS OFFICER ELECT Section on Statistics and the Environment, American Statistical Association	2020
Associate Editor Annals of Applied Statistics	2014 - 2019
GRANT REVIEWER Los Alamos National Laboratory, Laboratory Directed Research and Development	2019
BOARD OF DIRECTORS (PUBLICATIONS OFFICER) The International Environmetrics Society (TIES)	2017 - 2019
Associate Editor Advances in Statistical Climatology, Meteorology and Oceanography	2015 - 2018
Associate Editor Stat	2015 - 2018
LEAD ORGANIZER 4th Conference on Stochastic Weather Generators	Oct 2018
GRANT REVIEWER Canadian Statistical Sciences Institute	2018
Organization Committee Member Workshop on Stochastic Weather Generators	May 2016
ORGANIZATION COMMITTEE MEMBER Big Data in Environmental Science (Pacific Institute for the Mathematical Sciences)	Jun 2015
WORKSHOP ORGANIZER Pan-American Advanced Studies Institutes Program (PASI)	Jun 2014
SESSION CHAIR World Statistics Congress, Hong Kong, China	Aug 2013

Referee for Journals

Advances in Statistical Climatology, Meteorology and Oceanography; Advances in Water Resources; Annals of Applied Statistics; Biometrika; Bulletin of the Mexican Mathematical Society; Environmetrics; Hydrology and Earth System Sciences; International Journal of Climatology; Journal of Agricultural, Biological and Environmental Statistics; Journal of Applied Meteorology and Climatology; Journal of the American Statistical Association; Journal of Climate; Journal of Hydrometeorology; Journal of Multivariate Analysis; Journal of the Royal Statistical Society Series A; Journal of the Royal Statistical Society Series B; Linear and Multilinear Algebra; Monthly Weather Review; NCAR Technical Report Series; Nonlinear Processes in Geophysics; Nature; SIAM Online Undergraduate Journal; Stat; Statistica Sinica; Statistical Science; Statistics and Probability Letters; Stochastic Environmental Research and Risk Assessment; The American Statistician; Water Resources Research

GRANTS AND FUNDING (AMOUNTS ARE CU PORTION)

NSF DMS-2310487, PI, \$300,000 "Non-Gaussian Multivariate Processes for Renewable Energy and Finance"	Sep 2023–Aug 2026
NSF DMS-1923062, PI, \$336,924 "AMPS: Deep Stochastic Models for Space-Time Weather-Driven Grid Simulations"	Sep 2019–Aug 2024
NASA 80NSSC18K1489, Institutional PI, \$309,735 "Fusion of MODIS, VIIRS, and LandSat Snow Cover Data to Create	Oct 2018–Sep 2021

High Spatial and Temporal Resolution Estimates of Snow Water Equivalent in a Well-Instrumented and Austere Basin"	
NSF DMS-1821074, Co-PI, \$219,814 "Improving Particle Filter Performance in Spatially-Extended Problems Using Generalized Random Field Likelihoods"	Sep 2018–Aug 2021
CALIFORNIA DEPARTMENT OF FISH AND WILDLIFE, Co-PI, \$279,182 "Daily Snow Cover Maps for use in Understanding Habitat and Carrying Capacity of Bighorn Sheep in the Sierra Nevada"	Jun 2018–Dec 2019
NSF DMS-1822820, PI, \$30,000 "Conference on Stochastic Weather Generators"	Sep 2018–Sep 2019
NSF DMS-1811294, PI, \$92,717 "Collaborative Research: Theory and Methods for Highly Multivariate Spatial Processes with Applications to Climate Data Science"	Aug 2018–Jul 2021
NSF OCE-1736708, Co-PI, \$577,715 "A Stochastic Approach to Representing Unresolved Mesoscales in Ocean Circulation Models"	Aug 2017–Jul 2020
CU INNOVATIVE SEED GRANT, PI, \$49,971 "Inferring Earth Dynamics from Drones"	Jul 2017–Aug 2019
NREL CU APUP UGA-0-41026-101, PI, \$56,570 "Temporal Solar Variability Modeling Using Multi-Distribution Modeling Approaches"	Aug 2017–Jul 2018
NSF BCS-1461576, Co-PI, \$34,754 "Quantifying Risk of Tree Species Regeneration Failure and Ecosystem Transitions in Lower Elevation Forests"	May 2015–May 2019
NSF DMS-1406536, PI, \$307,938 "Collaborative Research: Theory and Methods for Massive Nonstationary and Multivariate Spatial Processes"	Aug 2014–Jul 2018
NSF DMS-1417724 (CDS&E-MSS), PI, \$73,116 "Collaborative Research: Scalable Statistical Validation and Uncertainty Quantification for Large Spatio-Temporal Datasets"	Aug 2014–Jul 2018
Outreach	
MENTOR, Math Alliance	2020 - present
LECTURER, Data Analytics Bootcamp for high school students, National Center for Atmospheric Research	Jun 2016
LECTURER, Data Analytics Bootcamp for high school students, National Center for Atmospheric Research	Jun 2015
TEACHING EXPERIENCE	
PROFESSOR, Statistical Learning, University of Colorado	Fall 2023
INSTRUCTOR, Short Course on An Introduction to Modern Challenges in Spatial Statistics, Spatial Statistics Conference	Jul 2023
PROFESSOR, Spatial Statistics, University of Colorado	Spring 2023
PROFESSOR, Introduction to Research Seminar, University of Colorado	Spring 2023

PROFESSOR, Introduction to Research Seminar, University of Colorado	Spring 2022
PROFESSOR, Spatial Statistics, University of Colorado	Fall 2021
PROFESSOR, Statistical Learning, University of Colorado	Fall 2021
PROFESSOR, Introduction to Research Seminar, University of Colorado	Spring 2021
INSTRUCTOR, Short Course on Spatial Statistical Learning, World Statistics Congress	Jun 2021
PROFESSOR, Spatial Statistics, University of Colorado	Fall 2020
PROFESSOR, Statistical Learning, University of Colorado	Fall 2020
GUEST LECTURER, Spatial Statistics, King Abdullah University of Science and Technology	Nov 2019
INSTRUCTOR, STATMOS Short Course, University of Iowa	Sep 2019
PROFESSOR, Spatial Statistics, University of Colorado	Spring 2019
PROFESSOR, Statistical Learning, University of Colorado	Spring 2019
PROFESSOR, Statistical Learning, University of Colorado	Spring 2018
PROFESSOR, Introduction to Time Series, University of Colorado	Spring 2018
PROFESSOR, Calculus 2 for Engineers, University of Colorado	Fall 2017
PROFESSOR, Spatial Statistics, University of Colorado	Spring 2017
PROFESSOR, Statistical Applications, University of Colorado	Spring 2017
PROFESSOR, Applied Probability, University of Colorado	Fall 2016
LECTURER, Rossbypalooza, University of Chicago	Jul 2016
PROFESSOR, Statistical Applications, University of Colorado	Spring 2016
PROFESSOR, Introduction to Time Series, University of Colorado	Spring 2016
PROFESSOR, Applied Probability, University of Colorado	Fall 2015
PROFESSOR, Spatial Statistics, University of Colorado	Spring 2015
PROFESSOR, Applied Probability, University of Colorado	Spring 2015
PROFESSOR, Introduction to Time Series, University of Colorado	Spring 2014
PROFESSOR, Applied Probability, University of Colorado	Spring 2014
PROFESSOR, Applied Probability, University of Colorado	Spring 2013
PROFESSOR, Matrix Methods, University of Colorado	Fall 2012
LECTURER, Mathematical Science of Understanding and Predicting Regional Climate: A School and Workshop, National University of Singapore	Feb-Mar 2011
TEACHING ASSISTANT, Introduction to Mathematical Statistics, University of Washington	Sep 2007

TEACHING ASSISTANT, Elements of Statistical Methods,	
University of Washington	Jan 2007

Advising and Students

Ph.D. Advisor for Graduate Students in Applied Mathematics and Notable	Position
Caitlin Berry	Present
Zofia Stanley (NSF GRFP recipient; Research Scientist at NOAA)	2021
Mitchell Krock (Postdoctoral Fellow at Rutgers University)	2020
Ashton Wiens (Research Statistician at USGS)	2020
Wenqi Zhang (Director's Postdoctoral Fellow at NREL)	2020
Zachary Mullen (Instructor in Computer Science at CU Boulder)	2018
Anthony Wong (Assistant Professor at Rochester Institute of Technology)	2016
Masters Advisor for Graduate Students in Applied Mathematics	
Amanda Lococo	2021
Shalini Mahanthege	2021
Josh Jacobson	2020
Kwan Ho Lee	2018
Gregory Benton (Maurice Davies Award recipient)	2018
Victoria Slattum	2017
Branden Olson	2016
Research Advisor for Undergraduate Students	
Connor Desrosiers (Electrical, Computer and Energy Engineering)	2023
Kelsey McKenna (Applied Mathematics)	2018
Ji Hoon Kim (Applied Mathematics)	2016 - 2017
Joshua North (Applied Mathematics)	2015 - 2017
Ian Laga (Applied Mathematics)	2015 - 2017
Brad Hendershott (Applied Mathematics)	2013 - 2014
Ph.D. Committee Member for Graduate Students in Applied Mathematics	
Kevin Doherty	2023
Rachel Robey	2023
Killian Wood	2023
Richard Clancy	2022
Joy Mueller	2021
Zhishen Huang	2020
Antony Pearson	2020
Peter Shaffery	2020
Sama Shrestha	2019
Dale Jennings	2016
Ashar Ali	2016
Yuanting Chen	2014

MASTERS COMMITTEE MEMBER FOR GRADUATE STUDENTS IN APPLIED MATHEMATICS

Serena DiLeonardo	2023
Jackson Curry	2022
Simon Julien	2022
Constance Delannoy	2022
Matthew Maierhofer	2019
Marc Thomson	2019
Jonathan Lavington	2018
Evan Sidrow	2018
Amy Chen	2018
Davis Yoshida	2017
Amy DeCastro	2017
PROFESSIONAL MASTERS ADVISOR FOR GRADUATE STUDENTS IN APPLIED MAT	HEMATICS
Laurette Hamlin	2021
Brian Magee	2019
Committee Member for Students in Other Departments	
PH.D. COMMITTEE MEMBER, Alvaro Ossandon,	2022
Department of Civil, Environmental and Architectural Engineering	2022
Ph.D. EXTERNAL COMMITTEE MEMBER, Ghulam Qadir, Computer, Electrical and Mathematical Sciences and Engineering, King Abdullah University of Science and Technology	2021
Ph.D. Committee Member, Alexander Honeyman, Department of Civil and Environmental Engineering, Colorado School of Mines	2021
Ph.D. COMMITTEE MEMBER, Kate Doubleday, Department of Electrical, Computer and Energy Engineering	2021
Ph.D. Committee Member, Sean Horvath, Department of Civil, Environmental and Architectural Engineering	2020
MASTERS THESIS COMMITTEE MEMBER, Brian Groenke, Department of Computer Science	2020
Ph.D. Committee Member, Olga Doronina, Department of Mechanical Engineering	2020
Ph.D. Committee Member, Eric Smyth, Department of Geological Sciences	2019
Ph.D. Committee Member, William Raseman, Department of Civil, Environmental and Architectural Engineering	2019
HONORS THESIS COMMITTEE MEMBER, Monica Gronseth, Department of Economics	2019
Ph.D. Committee Member, Vineel Yettella, Department of Atmospheric and Oceanic Sciences	2018
HONORS THESIS COMMITTEE MEMBER, Rebecca Landau, Department of Economics	2018

HONORS THESIS COMMITTEE MEMBER, Royce Brosseau, Department of Economics	2018
MASTERS THESIS COMMITTEE MEMBER, Joel Singley, Environmental Studies Program	2017
Ph.D. Committee Member, Cameron Bracken, Department of Civil, Environmental and Architectural Engineering	2016
Ph.D. Committee Member, Andrew Verdin, Department of Civil, Environmental and Architectural Engineering	2016
HONORS THESIS COMMITTEE MEMBER, Pawel Janas, Department of Economics	2016
CAMPUS AND DEPARTMENTAL SERVICE	
STATISTICS AND DATA SCIENCE COMMITTEE CHAIR	2023 - 2024
STATISTICS AND DATA SCIENCE COMMITTEE	2017 - present
PROBABILITY AND STATISTICS PRELIM COMMITTEE CHAIR	Fall 2023
Applied Mathematics Graduate Program Director	2020 - 2023
PROBABILITY AND STATISTICS PRELIM COMMITTEE	Spring 2023
Applied Mathematics Chair's Advisory Committee	2020 - 2022
Professional Masters Degree Committee	2020 - 2022
Affiliated Faculty Committee	2020 - 2022
PRIMARY UNIT EVALUATION COMMITTEE (FOR ERIC VANCE)	2022
PRIMARY UNIT EVALUATION COMMITTEE (FOR IAN GROOMS)	2021
PRIMARY UNIT EVALUATION COMMITTEE (FOR DAVID BORTZ)	2020
PROBABILITY AND STATISTICS PRELIM COMMITTEE	Fall 2020
Applied Mathematics Graduate Committee	2016 - 2019
STATISTICS AND DATA SCIENCE PROGRAM CHAIR	2018 - 2019
Applied Mathematics Graduate Program Associate Chair	2018 - 2019
PROBABILITY AND STATISTICS PRELIM COMMITTEE	Spring 2019
PRIMARY UNIT EVALUATION COMMITTEE (FOR BRIAN ZAHARATOS)	2018
Applied Mathematics Faculty Search Committee	2018
Arts and Sciences Council Applied Mathematics Representative	2017 - 2018
PROBABILITY AND STATISTICS PRELIM COMMITTEE CHAIR	Spring 2018
Applied Mathematics Faculty Search Committee	2017
Applied Mathematics Academic Review and Planning Advisory Committee (ARPAC) Self Study Committee	2016 - 2017

PRIMARY UNIT EVALUATION COMMITTEE (FOR ANNE DOUGHERTY PROMOTION TO TEACHING PROFESSOR)	2017
PROBABILITY AND STATISTICS PRELIM COMMITTEE CHAIR	Fall 2016
PROBABILITY AND STATISTICS PRELIM COMMITTEE CHAIR	Spring 2016
Department Awards Committee	2015 - 2016
Department Colloquium Chair	2014 - 2015
PROBABILITY AND STATISTICS PRELIM COMMITTEE	Fall 2014
Applied Mathematics Undergraduate Committee	2012 - 2014
PROBABILITY AND STATISTICS PRELIM COMMITTEE	2013
TALKS AND SEMINARS	
Some Statistical Problems in the Geosciences (Invited Colloquium) University of Missouri, Columbia, MO	Sep 2023
DEEP SUBORDINATION FOR RENEWABLE ENERGY STUDIES (Invited) Joint Statistical Meetings, Toronto, Canada	Aug 2023
THE BASIS GRAPHICAL LASSO FOR HIGHLY MULTIVARIATE AND MASSIVE NONSTATIONARY SPATIAL DATA (Invited Plenary) Spatial Statistics Conference, Boulder, CO	Jul 2023
Two Problems in Statistical Climatology: High-Dimensional Processes and Non-Gaussianity (Invited Seminar) Summer at Census, Remote	Jul 2023
ELECTRIC GRID RELIABILITY UNDER INTERMITTENT SOLAR POWER (Invited) New England Statistics Symposium, Boston, MA	Jun 2023
THE BASIS GRAPHICAL LASSO FOR HIGHLY MULTIVARIATE AND MASSIVE NONSTATIONARY SPATIAL DATA (Invited) International Indian Statistical Association, Golden, CO	Jun 2023
Some problems in statistical climatology (Invited Colloquium) Texas A&M University, Department of Statistics	Dec 2022
The basis graphical lasso for highly multivariate nonstationary spatial data (Invited) CMStatistics, Virtual	Dec 2021
THE BASIS GRAPHICAL LASSO FOR HIGHLY MULTIVARIATE NONSTATIONARY SPATIAL DATA (Topic Contributed) Joint Statistical Meetings, Virtual	Aug 2021
Modeling massive multivariate data with the basis graphical lasso NSF AMPS Workshop, Virtual	Nov 2020
A STOCHASTIC TROPICAL CYCLONE PRECIPITATION FIELD GENERATOR (Invited) Joint Statistical Meetings, Virtual	Aug 2020
THE BASIS GRAPHICAL LASSO FOR LARGE NONSTATIONARY SPATIAL DATA (Invited) Workshop on High Dimensional Statistical Analysis, Taipei, Taiwan	Dec 2019
THE BASIS GRAPHICAL LASSO FOR LARGE NONSTATIONARY SPATIAL DATA (Invited Colloquium) King Abdullah University of Science and Technology, Saudi Arabia	Nov 2019
STOCHASTIC DOWNSCALING OF SOLAR IRRADIANCE FOR DISTRIBUTION NETWORK STUDIES	Oct 2019

 NSF ATD/AMPS Workshop, Washington, DC

PENALIZED BASIS MODELS FOR VERY LARGE SPATIAL DATASETS (Invited) Applied Mathematics and Statistics Colloquium, Colorado School of Mines, Golden, CO	Sep 2019
Multivariate spatial modeling: Past, present and future STATMOS Workshop, Iowa City, IA	Sep 2019
PUSHING THE LIMITS OF MULTIVARIATE RANDOM FIELDS: HOW MANY IS TOO MANY? (Invited) Joint Statistical Meetings, Denver, CO	Aug 2019
PENALIZED BASIS MODELS FOR VERY LARGE SPATIAL DATASETS International Meeting on Statistical Climatology, Toulouse, France	Jun 2019
HIGH RESOLUTION SIMULATION OF NONSTATIONARY GAUSSIAN RANDOM FIELDS Front Range Spatial Statistics, Boulder, CO	Nov 2018
WAS IT RAINING THE DAY YOU WERE BORN? (Invited) Joint Statistical Meetings, Vancouver, Canada	Jul 2018
METHODS AND THEORY FOR LARGE MULTIVARIATE SPATIAL PROCESSES (Invited) 2018 IMS Annual Meeting on Probability and Statistics, Vilnius, Lithuania	Jul 2018
MULTIVARIATE RANDOM FIELDS AND THEIR APPLICATIONS IN ATMOSPHERIC SCIENCE (Invited Colloquium) Statistical Sciences Seminar, Los Alamos National Laboratory, Los Alamos, NM	Jun 2018
TOWARD A STATISTICAL APPROACH FOR CONDITIONALLY SIMULATING HISTORICAL DAILY PRECIPITATION Boulder Stochastics Meeting, Boulder, CO	May 2018
A MODEL FOR LARGE MULTIVARIATE SPATIAL DATASETS (Invited) IISA International Conference on Statistics, Gainesville, FL	May 2018
MULTIVARIATE RANDOM FIELDS AND THEIR APPLICATIONS IN CLIMATE/ATMOSPHERIC SCIENCE (Invited Colloquium) Applied Mathematics Seminar, Department of Mathematics, Fort Collins, CO	Apr 2018
A STATISTICAL APPROACH FOR CREATING HISTORICAL GRIDDED PRECIPITATION PRODUCTS IN THE UNITED STATES European Geophysical Union, Vienna, Austria	Apr 2018
STATISTICAL CHALLENGES IN CREATING HISTORICAL DATA PRODUCTS FOR THE UNITED STATES (Invited) Chicago ASA Chapter Conference on Weather and Prediction, Chicago, IL	Mar 2018
STATISTICAL CHALLENGES IN CREATING HISTORICAL DATA PRODUCTS FOR THE UNITED STATES (Colloquium) Applied Mathematics Colloquium, University of Colorado, Boulder	Mar 2018
HIGH RESOLUTION SIMULATION OF GAUSSIAN RANDOM FIELDS (Colloquium) Statistics, Optimization and Machine Learning Seminar, University of Colorado, Boulder	Feb 2017
MODELS FOR LARGE MULTIVARIATE DATA (Invited) International Chinese Statistical Association, Shanghai, China	Dec 2016
MULTIVARIATE RANDOM FIELDS (Colloquium) Applied Mathematics Colloquium, University of Colorado, Boulder	Dec 2016
Some Problems in Spatial Modeling: Multivariate Random Fields and Simulation (Invited Colloquium) Michigan State University, East Lansing, MI	Sep 2016
SIMULATION OF NONSTATIONARY RANDOM FIELDS (Topic Contributed) Joint Statistical Meetings, Chicago, IL	Aug 2016
The Challenge of Creating Historical Climate Products for the United States (Invited)	Jul 2016

The International Environmetrics Society, Edinburgh, Scotland	
Some Problems in Spatial Modeling: Simulation and Multivariate Random Fields (Invited) Boulder Fluid and Thermal Sciences Seminar, Boulder, CO	Jun 2016
SPATIAL STATISTICS FOR CLIMATE AND WEATHER (Invited) Uncertainty Modeling in the Analysis of Weather, Climate and Hydrological Extremes, Banff, Canada	Jun 2016
STOCHASTIC WEATHER GENERATORS: FROM WGEN TO BAYGEN (Invited) Workshop on Stochastic Weather Generators, Vannes, France	May 2016
EQUIVALENT KERNELS AND SOME THEORY FOR KRIGING ASYMPTOTICS (Invited) Université de Bretagne Occidentale, Brest, France	May 2016
KRIGING ASYMPTOTICS (Invited) King Abdullah University of Science and Technology, Saudi Arabia	Nov 2015
SPATIAL PREDICTION FOR LARGE DATASETS (Invited) Colorado State University, Fort Collins, CO	Nov 2015
SPATIAL PREDICTION FOR LARGE DATASETS (Invited) Ohio State University, Columbus, OH Lehigh University, Bethlehem, PA University of Colorado at Denver, Denver, CO	Oct 2015
KRIGING ASYMPTOTICS (Topic Contributed) Joint Statistical Meetings, Seattle, WA	Aug 2015
COHERENCE FOR RANDOM FIELDS (Invited) Mathematical and Statistical Analysis of Spatial Data, Aalborg, Denmark	Jun 2015
COHERENCE FOR RANDOM FIELDS (Invited) Big Data in the Environmental Sciences, Vancouver, Canada	May 2015
FEATURE-BASED MODEL CALIBRATION AND VALIDATION (Invited) Eastern North American Region Meeting of the International Biometric Society, Miami, FL	Mar 2015
FEATURE-BASED MODEL CALIBRATION AND VERIFICATION (Invited) Seismomatics, Valparaíso, Chile	Jan 2015
EQUIVALENT KRIGING (Invited) Workshop on High Dimensional, High Frequency and Spatial Data, Karlsruhe Institute of Technology, Germany	Oct 2014
THE CONNECTION BETWEEN SMOOTHING SPLINES AND KRIGING (Invited) Spatial Statistics Symposium, Heidelberg Institute of Theoretical Studies, Germany	Oct 2014
HIGH RESOLUTION SIMULATION OF NONSTATIONARY RANDOM FIELDS (Invited) Workshop on Stochastic Weather Generators, Avignon, France	Sep 2014
HIGH RESOLUTION SIMULATION OF NONSTATIONARY RANDOM FIELDS (Topic Contributed) Joint Statistical Meetings, Boston, MA	Aug 2014
EQUIVALENT KRIGING (Invited) Workshop on Spatial Statistics for Environmental and Energy Challenges, King Abdullah University of Science and Technology, Saudi Arabia	Mar 2014
EQUIVALENT KRIGING (Invited) University of Illinois, Urbana-Champaign, IL	Nov 2013
MODEL CALIBRATION VIA DEFORMATION & EQUIVALENT KRIGING (Invited) Water Resources Seminar, University of Colorado, Boulder, CO	Nov 2013
A FRAMEWORK FOR DAILY SPACE-TIME STOCHASTIC WEATHER SIMULATION (Invited) World Statistics Congress, Hong Kong, China	Aug 2013

EQUIVALENT KRIGING FOR LARGE DATASETS (Topic Contributed) Joint Statistical Meetings, Montreal, Canada	Aug 2013
MODEL CALIBRATION VIA SPACE-TIME FEATURE MATCHING (Organized Contributed) European Meeting of Statisticians, Budapest, Hungary	Jul 2013
MODEL CALIBRATION UNDER SPACE-TIME MISALIGNMENT (Invited) The International Environmetrics Society, Anchorage, AK	Jun 2013
MODEL CALIBRATION UNDER SPACE-TIME MISALIGNMENT (Invited) Economics Working Group, University of Colorado, Boulder, CO	Apr 2013
A FRAMEWORK FOR SPATIO-TEMPORAL STOCHASTIC WEATHER SIMULATION (Invited) Applied Mathematics Colloquium, University of Colorado, Boulder, CO	Nov 2012
A FRAMEWORK FOR SPATIO-TEMPORAL STOCHASTIC WEATHER SIMULATION (Topic Contributed) Joint Statistical Meetings, San Diego, CA	Aug 2012
A FRAMEWORK FOR SPATIO-TEMPORAL STOCHASTIC WEATHER SIMULATION (Invited) Ten Lectures on Statistical Climatology, Seattle, WA	Aug 2012
A FRAMEWORK FOR SPATIO-TEMPORAL STOCHASTIC WEATHER SIMULATION (Invited) Workshop on Stochastic Weather Generators, Roscoff, France	May 2012
Multivariate Spatial Process Modeling: An Overview (Invited) Interface, Houston, TX	May 2012
A FRAMEWORK FOR SPATIO-TEMPORAL STOCHASTIC WEATHER SIMULATION (Contributed) Colorado/Wyoming American Statistical Association Chapter Meeting, Boulder, CO	Apr 2012
Computer Model Calibration with High and Low Fidelity Model Output for Spatio-Temporal Data (Invited) Texas A&M University, College Station, TX	Mar 2012
COMPUTER MODEL CALIBRATION WITH HIGH AND LOW FIDELITY MODEL OUTPUT FOR SPATIO-TEMPORAL DATA (Invited) University of Iowa, Iowa City, IA Colorado State University, Fort Collins, CO North Carolina State University, Raleigh, NC Iowa State University, Ames, IA	Jan 2012
Computer Model Calibration with High and Low Resolution Model Output for Spatio-Temporal Data (Invited) University of Colorado, Boulder, CO	Dec 2011
COMPUTER MODEL CALIBRATION WITH HIGH AND LOW RESOLUTION MODEL OUTPUT FOR SPATIO-TEMPORAL DATA (Invited) Applied Mathematics and Statistics Colloquium, Colorado School of Mines, Golden, CO	Nov 2011
Computer Model Calibration with High and Low Resolution Model Output for Spatio-Temporal Data (Topic Contributed) Joint Statistical Meetings, Miami, FL	Aug 2011
GEOSTATISTICAL MODEL AVERAGING FOR PROBABILISTIC QUANTITATIVE PRECIPITATION FORECASTING (Invited) Colorado/Wyoming American Statistical Association Chapter Meeting, Boulder, CO	Apr 2011
MULTIVARIATE MATÉRN MODELS (Topic Contributed) Eastern North American Region Meeting of the International Biometric Society, Miami, FL	Mar 2011
GEOSTATISTICAL MODEL AVERAGING FOR PROBABILISTIC QUANTITATIVE PRECIPITATION FORECASTING (Invited) Colorado State University, Fort Collins, CO	Jan 2011

METHODS FOR LOCALLY CALIBRATED PROBABILISTIC FORECASTING (Invited) National Center for Atmospheric Research, Boulder, CO	Feb 2010
GEOSTATISTICAL MODEL AVERAGING (Invited) Mathematical Research Institute of Oberwolfach, Germany	Jan 2010
MATÉRN CROSS-COVARIANCE FUNCTIONS FOR MULTIVARIATE RANDOM FIELDS (Invited) University of Heidelberg, Germany University of Lund, Sweden	Jan 2010
Posters	
ESTIMATING HIGH MOUNTAIN SNOW COVER BY BLENDING SATELLITE DATA PRODUCTS (Invited Poster) Joint Statistical Meetings, Denver, CO	Jul 2019
EQUIVALENT KRIGING (Invited Poster) Joint Statistical Meetings, Boston, MA	Aug 2014
NONSTATIONARY SPACE-TIME STOCHASTIC WEATHER SIMULATION SAMSI Workshop on Massive Datasets in Environment and Climate, Boulder, CO	Feb 2013
UNCERTAINTY QUANTIFICATION FOR A MULTI-FIDELITY DYNAMICAL MODEL OF THE MAGNETOSPHERE SIAM Conference on Uncertainty Quantification, Raleigh, NC	Apr 2012
CALIBRATING THE LFM-MIX MODEL WITH SINGLE AND DOUBLE RESOLUTION MODEL OUTPUT American Geophysical Union Meeting, San Francisco, CA	Dec 2011
GEOSTATISTICAL MODEL AVERAGING FOR PROBABILISTIC QUANTITATIVE PRECIPITATION FORECASTING American Meteorological Society Meeting, Seattle, WA	Jan 2011
GEOSTATISTICAL MODEL AVERAGING FOR PROBABILISTIC QUANTITATIVE PRECIPITATION FORECASTING ASA Section on Statistics and the Environment Workshop, Boulder, CO	Oct 2010