

RESEARCH INTERESTS	Applied spatial statistics with a focus on biological and ecological systems, Bayesian statistics, computational methods, statistics and computing education and pedagogy.	
EDUCATION	University of California, Los Angeles, Department of Statistics Ph.D. in Statistics, 2012 M.S. in Statistics, 2008 Dissertation Topic: Bayesian Methods for Spatial Assignment of Migratory Birds Advisors: Jan de Leeuw and John Novembre  California Institute of Technology B.S. in Biology, 2003	
EMPLOYMENT	Associate Professor of the Practice Department of Statistical Science, Duke University	May 2022 - Present
	Assistant Professor of the Practice Department of Statistical Science, Duke University	June 2015 - May 2022
	Lecturer in Statistics and Data Science School of Mathematics, University of Edinburgh	May 2019 - May 2021
	Visiting Assistant Professor / Lecturer Department of Statistical Science, Duke University	January 2012 - May 2015
	Postdoctoral Associate Department of Statistical Science, Duke University	July 2012 - April 2014
	Graduate Student Researcher Novembre Lab, UCLA	September 2010 - December 2011
	Senior Statistical Consultant Statistical Consulting Center, UCLA	March 2009 - December 2011
	Graduate Teaching Assistant Dept. of Ecology and Evolutionary Biology, Dept. of Statistics, UCLA	September 2006 - July 2010
TEACHING	Duke University Sta 30 - Statistics and Quantitative Literacy - <a href="#">Fa 12</a> Sta 102 - Introductory Biostatistics - <a href="#">Sp 13</a> , <a href="#">Sp 14</a> , <a href="#">Fa 14</a> , <a href="#">Sp 15</a> , <a href="#">Fa 15</a> , <a href="#">Sp 16</a> , <a href="#">Su 16</a> Sta 111 - Probability and Statistical Inference - <a href="#">Su 14</a> Sta 112 - Better Living through Data Science - <a href="#">Fa 16</a> Sta 230 - Probability - <a href="#">Fa 12</a> , <a href="#">Sp 14</a> Sta 323 - Statistical Computing - <a href="#">Sp 16</a> , <a href="#">Sp 17</a> , <a href="#">Sp 18</a> , <a href="#">Sp 19</a> , <a href="#">Sp 22</a> Sta 444 / 644 - Spatio-Temporal Modeling - <a href="#">Sp 17</a> , <a href="#">Sp 18</a> , <a href="#">Fa 18</a> Sta 523 - Statistical Programming - <a href="#">Fa 14</a> , <a href="#">Fa 15</a> , <a href="#">Fa 16</a> , <a href="#">Fa 17</a> , <a href="#">Fa 18</a> , <a href="#">Fa 21</a> Sta 663 - Statistical Computing and Computation - <a href="#">Sp 22</a> Sta 790 - Advanced Statistical Computing - <a href="#">Sp 19</a>  University of Edinburgh Math 08068 - Facets of Mathematics - Regression Modeling Theme - <a href="#">Fa 19</a>	

Math 11176 - Statistical Programming - [Fa 19](#), [Fa 20](#)  
Math 11205 - Machine Learning in Python - Sp 20, Sp 21

ONLINE TEACHING Coursera - [Statistics with R Specialization](#)  
[Bayesian Statistics](#)  
[Statistics with R Capstone](#)

PUBLICATIONS Çetinkaya-Rundel, M., Hardin, J., Baumer, B. S., McNamara, A., Horton, N. J., Rundel, C. (2021). *An educator's perspective of the tidyverse*. Technology Innovations in Statistics Education (in revision), arXiv preprint [arXiv:2108.03510](#).

Poulsen, J., Beirne, C., Rundel, C., Baldino, M., Kim, S., Knorr, J., Minich, T., Jin, L., Núñez, C., Xiao, S., Mbamy, W., Obiang, G., Masseloux, J., Nkoghe, T., Ebanega, M., Clark, C., Fay, M., Morkel, P., Okouyi, J., White, L., Wright, J. (2021). *Long distance seed dispersal by forest elephants*. Frontiers in Ecology And Evolution. 9, 962. [DOI](#).

Beckman M., Çetinkaya-Rundel M., Horton N., Rundel C., Sullivan A., Tackett M. (2020) *Implementing Version Control With Git and GitHub as a Learning Objective in Statistics and Data Science Courses*. Journal of Statistics Education. 29 (Sup 1), 132 - 144. [DOI](#).

Johnson A., Rundel C., Hu J., Ross K., Rossman A. (2020) *Teaching an Undergraduate Course in Bayesian Statistics: A Panel Discussion*. Journal of Statistics Education. 28 (3), 251 - 261. [DOI](#).

Beirne C., Núñez C., Baldino M., Kim S., Knorr J., Minich T., Jin L., Xiao S., Mbamy W., Obiang G., Masseloux J., Nkoghe T., Ebanega M., Rundel C., Wright J., Poulsen J. (2019) *Estimation of gut passage time of wild, free roaming forest elephants*. Wildlife Biology. 2019 (1).

Cetinkaya-Rundel M., Rundel C.W. (2017) *Infrastructure and tools for teaching computing throughout the statistical curriculum*. The American Statistician. 72 (1), 58 - 65.

Rundel C.W., Schliep E.M., Holland D., Gelfand A. (2015) *A data fusion approach for spatial analysis of speciated PM<sub>2.5</sub> across time*. Environmetrics. 26 (8), 515 - 525.

Rundel C.W., Wunder M., Alvarado A.H., Ruegg K., Harrigan R., Schuh A., Jeffrey K., Siegel R., DeSante D.F., Smith T.B., Novembre J. (2013) *Novel statistical methods for integrating genetic and stable isotope data to infer individual-level migratory connectivity*. Molecular Ecology. 22 (16), 4163 - 4176.

de Bocanegra H.T., Rostovsteva D., Çetinkaya M., Rundel C.W., Lewis C. (2011). *Quality of reproductive health services to limited English proficient patients*. Journal of Health Care for the Poor and Underserved, 22 (4), 1167 - 1178.

Walker D.W., Muffat J, Rundel C.W., Benzer S. (2006). *Overexpression of a Drosophila Homolog of Apolipoprotein D Leads to Increased Stress Resistance and Extended Lifespan*. Current Biology, 16 (7), 674 - 679.

MAGAZINES Rundel, C.W., Cetinkaya-Rundel M. (2016) La Quinta is Spanish for next to Denny's, Chance 29 (2), 53 - 57

Rundel C.W. (2002) *Genes, Aging, and the Future of Longevity* Engineering & Science, 65 (4), 36 - 40.

TALKS & WORKSHOPS	RStudio Conf 2022 (Workshop)	July 2022
	Introduction to Shiny	
	ISI Short Course 2021 (Workshop)	June 2021
	<a href="#">Teaching Data Science</a>	
	RStudio Global 2021	January 2021
	<a href="#">parsermd - parsing R Markdown for fun and profit</a>	
	TLMSCO	September 2020
	Teaching computing using git and GitHub	
	JSM 2020 (Invited)	August 2020
	Computation Infrastructure for Teaching Bayesian Modeling	
	<a href="#">Teaching Statistics and Data Science Online</a> (Online Workshop)	July 2020
	Workshop 1: Teaching R online with RStudio Cloud	
	Workshop 2: Building interactive tutorials in R	
	Workshop 3: Teaching computing with Git and GitHub	
	RStudioConf 2020	January 2020
	livecode: broadcast your live coding sessions from and to RStudio	
	JSM 2019	August 2019
	ghclass: an R package for managing classes with GitHub	
	JSM 2019 (Workshop)	July 2019
	Reproducible Computing	
	UseR! 2019	July 2019
	ghclass: an R package for managing classes with GitHub	
	SDSS 2019 (Invited)	May 2019
	Using Rocker containers and CI for teaching R-based courses	
	ICOTS10 2018 (Workshop)	July 2018
	<a href="#">Teaching Data Science, Reproducibly</a>	
	ISBA World Meeting 2018 (Short Course)	June 2018
	<a href="#">Reproducible Computing</a>	
	Joint Statistical Meetings 2017 (Invited)	August 2017
	<a href="#">Moving Away from Ad Hoc Statistical Computing Education</a>	
	UseR! 2017 (Tutorial)	July 2017
	<a href="#">Data Carpentry: Open and Reproducible Research with R</a>	
	Joint Statistical Meetings 2016 (Invited)	August 2016
	<a href="#">Statistical Computing as an Introduction to Data Science</a>	
	UseR! 2016	July 2016
	<a href="#">Continuous Integration and Teaching Statistical Computing with R</a>	
	Joint Statistical Meetings 2015	August 2015
	<a href="#">Teaching statistical computing leveraging the github ecosystem</a>	
	UseR! 2015	July 2015
	<a href="#">Teaching R using the github ecosystem</a>	
	Data Analytics in Business and Social Science Seminar, Duke SSRI	April 2015
	<a href="#">Geospatial data and the R ecosystem</a>	
	Joint Statistical Meetings 2014	August 2014
	<a href="#">A Data Fusion Approach for Space-Time Analysis of Speciated PM<sub>2.5</sub></a>	
	Duke Dept of Statistical Science Seminar	February 2014
	<a href="#">Using GPUs to improve the computational efficiency of Gaussian process models</a>	
	Joint Statistical Meetings 2013	August 2013
	<a href="#">GPUs, linear algebra, and efficient computing for Gaussian process models</a>	
	UseR! 2013	July 2013

	<a href="#">Leveraging GPU libraries for efficient computation of Gaussian process models in R</a>	
	Joint Statistical Meetings 2012	August 2012
	<a href="#">Leveraging GPU Libraries for Efficient Computation of Bayesian Spatial Assignment Models in R</a>	
	UseR! 2012	June 2012
	<a href="#">rgeos: spatial geometry predicates and topology operations in R</a>	
	Joint Statistical Meetings 2011	August 2011
	<a href="#">Spatial Models for Bird Origin Assignment Using Genetic and Isotopic Data</a>	
SERVICE	Guest Associate Editor, <a href="#">Journal of Statistics and Data Science Education</a>	Fall 2021
	Special Issue on Teaching Reproducibility and Responsible Workflow	
	DSS Master's Advisory Committee	Fall 2017 - Spring 2019
	<a href="#">Duke's Information Technology Advisory Council</a>	Fall 2017 - present
	DSS Computing Committee	Summer 2014 - Spring 2019, Fall 2021 - present
	Chair, Spring 2017 - Spring 2019, Fall 2021 - present	
	ASA DataFest @ Duke	Fall 2011 - Spring 2019
	Co-organizer	
	Bayes Impact at Duke	Fall 2014 - Spring 2016
	Scientific Registry of Transplant Recipients	
	Motion Math	
SOFTWARE	<a href="#">md4r</a> : R wrapper of the md4c markdown parsing library.	
	<a href="#">checklist</a> : Tools for automating checking of R projects, with a focus on automated feedback via CI tooling like GitHub actions.	
	<a href="#">parsermd</a> : Tools for parsing and programmatically interacting with R Markdown documents.	
	<a href="#">learnrhash</a> : Tools for recording student results for questions and exercises in learnr documents.	
	<a href="#">livecode</a> : Library for broadcasting source files during live coding sessions.	
	<a href="#">ghclass</a> : Library for managing classroom and assignment related tasks on github.	
	<a href="#">rgeos</a> : R interface to the Geometry Engine, Open Source (GEOS) library.	
	<a href="#">isoscatR</a> : R package for smoothed and continuous assignment testing (SCAT) of genetic samples	
	<a href="#">timezone</a> : A small R package for finding timezone names from geographic coordinates	
	<a href="#">RcppGP</a> : Tools for efficiently working with Gaussian Processes in R / C++	
	<a href="#">mapnik</a> : <a href="#">parser</a> and <a href="#">generator</a> for the <a href="#">carto</a> map style language.	
MEMBERSHIPS	American Statistical Association	
	International Society for Bayesian Analysis	