

Colin Rundel

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204 Old Chemistry Building • Dept of Statistical Science, Duke University
2256 JCMB • School of Mathematics, University of Edinburgh

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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 Lecturer May 2019 - Present
School of Mathematics, University of Edinburgh

Assistant Professor of the Practice June 2015 - Present
Department of Statistical Science, Duke University

Visiting Assistant Professor / Lecturer January 2012 - May 2015
Department of Statistical Science, Duke University

Postdoctoral Associate July 2012 - April 2014
Department of Statistical Science, Duke University

Graduate Student Researcher September 2010 - December 2011
Novembre Lab, UCLA

Senior Statistical Consultant March 2009 - December 2011
Statistical Consulting Center, UCLA

Graduate Teaching Assistant September 2006 - July 2010
Dept. of Ecology and Evolutionary Biology, Dept. of Statistics, UCLA

TEACHING University of Edinburgh
Math 08068 - Facets of Mathematics - Regression Modeling Theme - Sp 19
Math 11176 - Statistical Programming - [Sp 19](#)
Math 11205 - Machine Learning in Python - Fa 20

Duke University
Sta 30 - Statistics and Quantitative Literacy - [Fa 12](#)
Sta 102 - Introductory Biostatistics - [Sp 13](#), [Sp 14](#), [Fa 14](#), [Sp 15](#), [Fa 15](#), [Sp 16](#), [Su 16](#)
Sta 111 - Probability and Statistical Inference - [Su 14](#)
Sta 112 - Better Living through Data Science - [Fa 16](#)
Sta 230 - Probability - [Fa 12](#), [Sp 14](#)
Sta 323 - Statistical Computing - [Sp 16](#), [Sp 17](#), [Sp 18](#), [Sp 19](#)
Sta 444 / 644 - Spatio-Temporal Modeling - [Sp 17](#), [Sp 18](#), [Fa 18](#)
Sta 523 - Statistical Programming - [Fa 14](#), [Fa 15](#), [Fa 16](#), [Fa 17](#), [Fa 18](#)
Sta 790 - Advanced Statistical Computing - [Sp 19](#)

ONLINE TEACHING	Coursera - Statistics with R Specialization Bayesian Statistics Statistics with R Capstone	
PUBLICATIONS	<p>Cetinkaya-Rundel M., Rundel C.W. (2017) <i>Infrastructure and tools for teaching computing throughout the statistical curriculum</i>. The American Statistician. 72 (1), 58 - 65.</p> <p>Rundel C.W., Schliep E.M., Holland D., Gelfand A. (2015) <i>A data fusion approach for spatial analysis of speciated PM_{2.5} across time</i>. Environmetrics. 26 (8), 515 - 525.</p> <p>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) <i>Novel statistical methods for integrating genetic and stable isotope data to infer individual-level migratory connectivity</i>. Molecular Ecology. 22 (16), 4163 - 4176.</p> <p>de Bocanegra H.T., Rostovsteva D., Cetinkaya M., Rundel C.W., Lewis C. (2011). <i>Quality of reproductive health services to limited English proficient patients</i>. Journal of Health Care for the Poor and Underserved, 22 (4), 1167 - 1178.</p> <p>Walker D.W., Muffat J, Rundel C.W., Benzer S. (2006). <i>Overexpression of a Drosophila Homolog of Apolipoprotein D Leads to Increased Stress Resistance and Extended Lifespan</i>. Current Biology, 16 (7), 674 - 679.</p>	
MAGAZINES	<p>Rundel, C.W., Cetinkaya-Rundel M. (2016) La Quinta is Spanish for next to Denny's, Chance 29 (2), 53 - 57</p> <p>Rundel C.W. (2002) <i>Genes, Aging, and the Future of Longevity</i> Engineering & Science, 65 (4), 36 - 40.</p>	
TALKS	<p>JSM 2019 ghclass: an R package for managing classes with GitHub</p> <p>JSM 2019 (Workshop) Reproducible Computing</p> <p>UseR! 2019 ghclass: an R package for managing classes with GitHub</p> <p>SDSS 2019 (Invited) Using Rocker containers and CI for teaching R-based courses</p> <p>ICOTS10 2018 (Workshop) Teaching Data Science, Reproducibly</p> <p>ISBA World Meeting 2018 (Short Course) Reproducible Computing</p> <p>Joint Statistical Meetings 2017 (Invited) Moving Away from Ad Hoc Statistical Computing Education</p> <p>UseR! 2017 (Tutorial) Data Carpentry: Open and Reproducible Research with R</p> <p>Joint Statistical Meetings 2016 (Invited) Statistical Computing as an Introduction to Data Science</p> <p>UseR! 2016 Continuous Integration and Teaching Statistical Computing with R</p> <p>Joint Statistical Meetings 2015 Teaching statistical computing leveraging the github ecosystem</p> <p>UseR! 2015</p>	<p>August 2019</p> <p>July 2019</p> <p>July 2019</p> <p>May 2019</p> <p>July 2018</p> <p>June 2018</p> <p>August 2017</p> <p>July 2017</p> <p>August 2016</p> <p>July 2016</p> <p>August 2015</p> <p>July 2015</p>

	Teaching R using the github ecosystem	
	Data Analytics in Business and Social Science Seminar, Duke SSRI	April 2015
	Geospatial data and the R ecosystem	
	Joint Statistical Meetings 2014	August 2014
	A Data Fusion Approach for Space-Time Analysis of Speciated PM_{2.5}	
	Duke Dept of Statistical Science Seminar	February 2014
	Using GPUs to improve the computational efficiency of Gaussian process models	
	Joint Statistical Meetings 2013	August 2013
	GPUs, linear algebra, and efficient computing for Gaussian process models	
	UseR! 2013	July 2013
	Leveraging GPU libraries for efficient computation of Gaussian process models in R	
	Joint Statistical Meetings 2012	August 2012
	Leveraging GPU Libraries for Efficient Computation of Bayesian Spatial Assignment Models in R	
	UseR! 2012	June 2012
	rgeos: spatial geometry predicates and topology operations in R	
	Joint Statistical Meetings 2011	August 2011
	Spatial Models for Bird Origin Assignment Using Genetic and Isotopic Data	
SERVICE	DSS Master's Advisory Committee	Fall 2017 - Spring 2019
	Duke's Information Technology Advisory Council	Fall 2017 - present
	DSS Computing Committee	Summer 2014 - Spring 2019
	Chair, Spring 2017 - Spring 2019	
	ASA DataFest	Fall 2011 - present
	Co-organizer	
	Bayes Impact at Duke	Fall 2014 - Spring 2016
	Scientific Registry of Transplant Recipients	
	Motion Math	
SOFTWARE	livecode : Library broadcasting source files during live codeing sessions.	
	ghclass : Library for managing classroom and assignment related tasks on github.	
	rgeos : R interface to the Geometry Engine, Open Source (GEOS) library.	
	isoscatter : R package for smoothed and continuous assignment testing (SCAT) of genetic samples	
	timezone : A small R package for finding timezone names from geographic coordinates	
	RcppGP : Tools for efficiently working with Gaussian Processes in R / C++	
	mapnik : parser and generator for the carto map style language.	
MEMBERSHIPS	American Statistical Association	
	International Society for Bayesian Analysis	