

EDWARD A. ROUALDES

eroualdes@csuchico.edu

ORCID: 0000-0002-8757-3463

roualdes.us

Academic Employment

Assistant Professor 2015 - present
Department of Mathematics and Statistics, CSU, Chico

Education

PhD Statistics, University of Kentucky 2010-2015
MS Economics, Tufts University 2009-2010
BS Mathematics, CSU, Chico 2003-2008
BA Economics *with honors*
Minor Business Administration

Recent Courses Taught

CSCI 111 Programming and Algorithms I
Introduction to computer programming; taught in C++

MATH 130 Introduction to Data Analysis using R
Interdisciplinary introduction to computer programming; taught in R

MATH 314 Probability and Statistics for Science and Technology
Introduction to statistics directed towards, but not limited to, computer science and engineering majors

MATH 350 Introduction to Probability and Statistics I
Calculus based introduction to probability and random variables

MATH 351 Introduction to Probability and Statistics II
Calculus based introduction to statistics

Publications

Banet, A. I., Healy, S. J., Eliason, E. J., Roualdes, E. A., Patterson, D. A., and Hinch, S. G. *Effect of cortisol exposure during embryonic development on juvenile Pacific salmon aerobic performance*. In preparation for Functional Ecology.

Whitney, T. D., Sitvarin, M. I., Roualdes, E. A., Bonner, S. J., and Harwood, J. D. *Selectivity underlies the dissociation between seasonal prey availability and prey consumption in a generalist predator* Molecular Ecology (2018).

Rounsaville, T., Baskin, C. C., Roualdes, E. A., McCulley, R. L., and Arthur, M. A. *Seed dynamics of the liana Euonymus fortunei and implications for invasibility*. Torrey Botanical Society (2018).

Zou, C., Pearce, R. C., Grove, J. H., Coyne, M. S., Roualdes, E. A., and Li, Y. *The Stability of indicators for net soil nitrogen mineralization in tobaccos rotation and tillage systems*. Soil Science Society of America Journal (2017).

Van Dusen, B., J-S. S., Roualdes, E. A. *The impact of learning assistants on inequities in physics student outcomes*. Physics Education Research Conference (PERC) 2016 proceedings.

Van Dusen, B., J-S. S., Roualdes, E. A. *The systemic impacts of learning assistants on student learning of physics*. Physics Education Research Conference (PERC) 2016 proceedings.

Fenger, C. K., Tobin, T., Casey, P. J., Roualdes, E. A., Langemeier, J. L., Cowles, R., and Haines, D. M. *Enhanced bovine colostrum supplementation shortens the duration of respiratory disease in thoroughbred yearlings*. Journal of Equine Veterinary Science, 42:77 – 81, 2016. DOI: 10.1016/j.jevs.2016.03.012

Roualdes, E. A., Bonner, S. J., Whitney, T. D., Harwood, J. D. *Formal modelling of predator preferences using molecular gut-content analysis*. Environmental and Ecological Statistics, 23(2):317 – 336, 2016. DOI: 10.1007/s10651-016-0341-3

Roualdes, E. A. *Bayesian Trend Filtering*. arXiv.org <http://arxiv.org/abs/1505.07710>

Fenger, C. K., Tobin, T., Casey, P. J., Roualdes, E. A., Langemeier, J., Haines, D. M. *Comparative Exercise Physiology 11/2014; 10(4):233-238. Bovine colostrum supplementation optimises earnings, performance and recovery in racing Thoroughbreds*. DOI: 10.3920/CEP140023

Grants

AB 798: College Textbook Affordability Act of 2015; \$50,000	2017
Textbook Affordability Project; \$1,000 each	2016, 2017

Research Talks

Roualdes, E. A. *Using Python for Exploratory Data Analysis*. Data Science Seminar Series, California State University, Chico, 2018.

Roualdes, E. A. *An Introduction to Bayesian Statistics*. Department of Mathematics's Colloquium Series, Humboldt State University, 2018.

Roualdes, E. A. *Introduction to Bayesian Modelling*. Data Science Seminar Series, California State University, Chico, 2018.

Roualdes, E. A. *An Introduction to Bayesian Statistics*. Department of Mathematics and Statistics's Colloquium Series, California State University, Chico, 2018.

Roualdes, E. A. *An Introduction to Expectation-Maximization Algorithms*. Department of Economics's Brown Bag Series, California State University, Chico, 2016.

Fenger, C. K., Tobin, T., Casey, P. J., Roualdes, E. A., Langemeier, J., Haines, D. M. *Bovine Colostrum Supplementation Improves Earnings, Performance and Recovery in Racing Thoroughbreds*. International Conference of Racing Analysts and Veterinarians, 2014, Mauritius

Roualdes, E. A. *Bayesian trend filtering*. Joint Statistical Meeting, 2014, Boston, MA

Mays, H. L. Jr., McKay, B. D., Hoffman, S., Spinelli, M., Weisrock, D., O'Neill, E., Roualdes E. A., Nishiumi, I., Yao, C., Wu, Y., Li, H., Zou, F. *The utility of microfluidics PCR libraries and other next-generation sequencing approaches in avian phylogeography: A case study for Light-vented (Pycnonotus sinensis) and Taiwan Bulbuls (Pycnonotus taioanus)*. International Ornithological Congress, 2013, Tokyo, Japan

Roualdes, E. A., O'Neill E., Weisrock, D. *NextAllele: a bioinformatic pipeline for next generation sequence data*. Dominican University of California, 2012, San Rafael, CA

Roualdes, E. A., Yoshida, R. *Nonparametric species delimitation*. International Symposium of Mathematical Programming, 2012, Berlin, Germany, *invited*

Roualdes, E. A., Yoshida, R. *Nonparametric species delimitation*. Society for Industrial and Applied Mathematics, 2012, Minneapolis, MN

Roualdes, E. A. *Calculating the ECDF via computationally efficient binning*. University of Kentucky, 2011, Lexington, KY

Software Development

Contributor for Stan: probabilistic programming language for statistical inference.
<https://github.com/stan-dev/>

Roualdes, E. A. btf: Estimates univariate function via Bayesian trend filtering. R package version 1.0. <http://cran.r-project.org/web/packages/btf/index.html>

Roualdes, E. A., Bonner, S. J., spiders: fits our predator preferences model. R package version 1.0. <https://github.com/roualdes/spiders>

Roualdes, E. A. NextAllele: a bioinformatic program written in Python to phase haplotypes of diploid animals. <https://code.google.com/p/nextallele/>

Poster Presentations

Roualdes, E. A., O'Neill E., Weisrock, D. *NextAllele: a bioinformatic pipeline for next generation sequence data*. Joint Statistical Meeting, 2013, Montreal, Canada

Awards

R.L. Anderson Research Award, University of Kentucky, Department of Statistics	2014
Economic Service Award, CSU, Chico, Economics Department	2008
Wall Street Journal Award for Achievement, CSU, Chico, Economics Department	2008
Lt. Robert Merton Rawlins Merit Award, CSU, Chico	2007
John Smale Award for Excellence in Economics, CSU, Chico, Economics Department	2006