Mine Çetinkaya-Rundel

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Education

University of California, Los Angeles, Department of Statistics

Ph.D. in Statistics, 2011
M.S. in Statistics, 2008

Dissertation: Estimating the impact of air pollution using small area estimation
Advisor: Jan de Leeuw

New York University, Leonard N. Stern School of Business

B.S. in Actuarial Science, Minor in Mathematics, 2004

Academic Appointments

Associate Professor of the Practice — July 2016 - present
Duke University - Department of Statistical Science

Director of Undergraduate Studies — July 2015 - present
Duke University - Department of Statistical Science

Assistant Professor of the Practice — July 2011 - July 2016
Duke University - Department of Statistical Science

Lecturer — June 2009 - June 2011
University of California, Los Angeles - Department of Statistics

Publications: Books

1. Diez D.M., Barr C.D. & **Çetinkaya-Rundel M.** *OpenIntro: Statistics (Third Edition)*. 2015. Releases at openintro.org.
2. Diez D.M., Barr C.D., **Çetinkaya-Rundel M.**, Dorazio, L. *OpenIntro: Advanced High School Statistics (First Edition)*. 2015. Releases at openintro.org.
3. Diez D.M., Barr C.D. & **Çetinkaya-Rundel M.** *OpenIntro: Introductory Statistics with Randomization and Simulation (First Edition)*. 2014. Releases at openintro.org.

Publications: Peer Reviewed & Invited Papers

4. Feldblum J. T., Wroblewski E. W., Rudicell R. S., Hahn B. H., Paiva T., **Çetinkaya-Rundel M.**, Pusey, A. E., & Gilby, I. C. (2014) *Sexually Coercive Male Chimpanzees Sire More Offspring.* Current Biology. In print. doi: 10.1016/j.cub.2014.10.039.
5. Baumer B., **Çetinkaya-Rundel M.**, Bray A., Loi L., Horton N. (2014) *R Markdown: Integrating A Reproducible Analysis Tool into Introductory Statistics*. Technology Innovations in Statistics Education, 8(1).
6. **Çetinkaya-Rundel M.**, Diez D.M., Barr C.R. (2013) *OpenIntro Statistics: an Open-source Textbook.* Technology Innovations in Statistics Education 7.3.
7. **Çetinkaya-Rundel M.**, Diez D.M., Barr C.R. (2013) *Response: C-RDB.* Technology Innovations in Statistics Education 7.3.
8. Gould R., and **Çetinkaya-Rundel M.** *Teaching Statistical Thinking in the Data Deluge.* Mit Werkzeugen Mathematik und Stochastik lernenUsing Tools for Learning Mathematics and Statistics. Springer Fachmedien Wiesbaden, 2014. 377-391.
9. Kosins A.M., Scholz T., **Çetinkaya M.**, Evans G.R. (2013). *Evidence-based value of subcutaneous surgical wound drainage: the largest systematic review and meta-analyses.* Plastic and reconstructive surgery. doi: 10.1097/PRS.0b013e3182958945.
10. 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.

PUBLICATIONS: SUBMITTED PAPERS

(* indicates undergraduate students)

11. Shapiro, H.*, **Çetinkaya-Rundel M.**, Canelas, D., Wyman-Roth, N. *Understanding the Massive Open Online Course Student Experience through Text Analysis of Interviews.* Computers & Education.

PUBLICATIONS: PAPERS IN PREPARATION

(* indicates undergraduate students)

12. Bean S., Bentley R., Scanlon M.*, **Çetinkaya-Rundel M.** *Development of a Case-Based Measure of Pathology Resident Performance: the trainee review field.*
13. Weishampel, A.*, **Çetinkaya-Rundel M.** *Identifying the Characteristics that Predict a Student's Success and Completion of a Massive Open Online Course.* Journal of Statistics Education.

PUBLICATIONS: OTHER

14. Gould R., **Çetinkaya-Rundel M.**, Zieffler A. (2013 - present) Citizen-Statistician blog
15. Gould R., Baumer, B., **Çetinkaya-Rundel M.**, Bray A. (2014) *Big Data Goes to College*, AMSTAT News. Issue 444.
16. Behseta S., **Çetinkaya-Rundel M.** (2014) *Interview with Jim Berger*, Chance Magazine. Vol. 27, No. 2.
17. McClintock S., **Çetinkaya-Rundel M.**, Stangl D.K. (2014) *A Classroom Project for Generation Z*, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 27, No. 4.
18. Bray A., **Çetinkaya-Rundel M.**, Stangl D.K. (2014) *Five Concrete Reasons Your Students Should Be Learning to Analyze Data in the Reproducible Paradigm*, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 27, No. 3.
19. Morgan K.L., **Çetinkaya-Rundel M.**, Stangl D.K. (2014) *Speed Dating: Exploring Initial Romantic Attraction*, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 27, No. 2.
20. McClintock S., **Çetinkaya-Rundel M.**, Stangl D.K. (2014) *The Real Secret to Genius? Reading Between the Lines*, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 27, No. 1.
21. Schutt R., Stangl, D.K., **Çetinkaya-Rundel M.** (2013) *Embracing the Ambiguity and Potential of Data Science*, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 26, No. 4.
22. **Çetinkaya-Rundel M.**, Stangl D.K. (2013) *A Celebration of Data*, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 26, No. 3.
23. **Çetinkaya-Rundel M.**, Morgan K.L., Stangl D.K. (2013) *Looking Good on Course Evaluations*, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 26, No. 2.
24. Morgan K.L., **Çetinkaya-Rundel M.**, Stangl D.K. (2013) *The American Community Survey*, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 26, No. 1.
25. **Çetinkaya-Rundel M.**, Stangl, D.K., Morgan K.L. (2012) *Making the Old New Again*, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 25, No. 4.
26. **Çetinkaya-Rundel M.**, Stangl, D.K., Morgan K.L. (2012) *Exploring Google's Transparency Report*, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 25, No. 2.
27. Stangl D.K., **Çetinkaya-Rundel M.**, Morgan K.L. (2012) *Uncounted Votes: A Case Study in Analyzing Aggregated Data*, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 25, No. 1.

Publications: Technical Reports

All reports can be found at http://scc.stat.ucla.edu.

28. Çetinkaya M. (2010). *Neonatal Candidiasis Risk Factors*.
29. Çetinkaya M. & Rundel C.W. (2010). *CVCB Antimicrobial Lock Therapy Study*.
30. Çetinkaya M. (2010). *Type 2 diabetes mellitus and melatonin levels*.
31. Çetinkaya M. (2010). *Carpinteria Childbearing Survey*.
32. Wilson B. & Çetinkaya M. (2009). *Surgery preference of orthopedic surgeons*.
33. Wilson B. & Çetinkaya M. (2009). *Thyroid cancer and iodine levels*.
34. Wilson B., Çetinkaya M. & Yajima M. (2009). *Executive Compensation*.
35. Çetinkaya M. & Rundel C.W. (2009). *Meta-analysis of the value of prophylactic drainage*.

Honors & Awards

ASA 2016 Waller Education Award. $1,000.

Best PaperAwardJSM 2015 Section on Teaching Statistics in the Health Sciences. $500.

David and Janet Vaughan Brooks Award for Teaching Excellence. Duke University, 2014. $5,000.

Teaching Assistant of the Year Nominee. Department of Statistics, University of California, Los Angeles, 2008, 2009, 2010.

Graduated Cum Laude & Founders Day Honors Scholar. New York University, Leonard N. Stern School of Business, 2004.

Grants & Fellowships

TIER Faculty Fellowships 2015-16. Haverford College. $5,000.

Duke University BASS Connections Education & Human Development Grant for *Coursera and the Future of MOOCs*. (2013 - 2015). Role: Principal Investigator. Co-PI: Dorian Canelas (Department of Chemistry, Duke University). $10,000 each year.

Duke University BASS Connections Education & Human Development Grant for *STEM For All*. (2015 - 2016). Role: Principal Investigator. Co-PI: Genna Miller (Department of Economics, Duke University). $15,000.

Duke University CIT Grant for *Developing the MOOC: Data Analysis and Statistical Inference* (2013-2014). $10,000.

Duke Collaborative Center Grant for *Women and Increasing STEM-Efficacy (W-ISE) pilot project*. (2013) $20,000. Role: Principal Investigator. Co-PI: Genna Miller (Department of Economics, Duke University).

Team-Based Learning Course Design Fellowship. Center for Instructional Technology, Duke University, 2012. $1,000.

Collegium of University Teaching Fellowship. Office of Instructional Development, University of California, Los Angeles, 2009.

Invited Talks

1. Çetinkaya-Rundel. *Integrating reproducibility into the undergraduate statistics curriculum*. Joint Statistical Meetings. Chicago, IL. August 2016.
2. Çetinkaya-Rundel. *Teaching to, and learning from, the masses*. Joint Statistical Meetings. Seattle, WA. August 2015.
3. Çetinkaya-Rundel. *Expanding R Exposure through Early Introduction in the Undergraduate Curriculum*. R Summit & Workshop. Copenhagen, Denmark. June 2015.
4. Çetinkaya-Rundel. *Coursera and the Future of MOOCs*. Duke Librarys First Wednesday forum. Durham, NC. May 2015.

5. Çetinkaya-Rundel, M., van Ginhoven, S. *Data Expedition: Exploring / Modeling / Predicting / Understanding Paintings in Paris*. iiD Data Science Series. Durham, NC. April 2015.
6. Çetinkaya-Rundel. *Bayesian baby steps*. VA CSP Biostatistics Subdomain: April Methodology Call. April 2015.
7. Çetinkaya-Rundel. *There and back again: Data Analysis and Statistical Inference*. CIT LTC. Durham, NC. March 2015.
8. Çetinkaya-Rundel, M., van Ginhoven, S. *Data Expedition: Exploring / Modeling / Predicting / Understanding Paintings in Paris*. Duke Media Arts + Sciences Rendezvous. Durham, NC. January 2015.
9. Çetinkaya-Rundel, M. *Teaching data analysis through the lens of reproducibility* . Reproducible Science Hackathon: Curriculum & Workflow Development. NESCENT. Durham, NC. December 2014.
10. Çetinkaya-Rundel, M. *See you / see me: An interactive real-time online course*. Duke University CIT Showcase. Durham, NC. October 2014.
11. Çetinkaya-Rundel, M. *Panel on Teaching from Big Data*. eCOTS. May 2014.
12. Çetinkaya-Rundel, M. *Increasing the Visibility of Women in Statistics*. Women In Statistics Conference. Cary, NC. May 2014.
13. Çetinkaya-Rundel, M. *Statistical Modeling*. Duke University, guest lecture in Focus Mathematical Modeling course. Durham, NC. March 2014.
14. Çetinkaya-Rundel, M. *See you / see me: An interactive real-time online course*. Duke University CIT. Durham, NC. October 2013.
15. Çetinkaya-Rundel, M. *Statisticians work with the hottest models*. FOCUS Cluster Dinner Series at Duke University: What If? Explaining the Past/Predicting the Future. Durham, NC. October 2013.
16. Çetinkaya-Rundel M., Murphy, K. *Classroom Response Systems at Duke*. CIT Showcase at Duke University. Durham, NC. April 2013.
17. Vidra, R., Çetinkaya-Rundel M., Gauthier, D. *Integrating Team-Based Learning Across Disciplines: Ideas and Challenges*. CIT Showcase at Duke University. Durham, NC. April 2013.

Presentations and Posters

1. Çetinkaya-Rundel. *A first-year undergraduate data science course*. useR 2015. Palo Alto, CA. July 2016.
2. Çetinkaya-Rundel. *Using R, RStudio, and Docker for introductory statistics*. useR 2015. Aalborg, Denmark. July 2015.
3. Bray, A., Çetinkaya-Rundel. *Collaborative statistics education through OpenIntro and GitHub*. useR 2015. Aalborg, Denmark. July 2015. [poster]
4. Çetinkaya-Rundel, Horton, N. *Connecting data, analysis, and results using a reproducible framework*. United States Conference On Teaching Statistics. State College, PA. May 2015.
5. Çetinkaya-Rundel. *Raising better scientists.* Duke Tech Expo 2015. Durham, NC. April 2015.
6. Çetinkaya-Rundel. *Interactivity online and on-campus: Data Analysis and Statistical Inference*. Coursera Partners Conference. Orange County, CA. March 2015. [poster]
7. Çetinkaya-Rundel. *Data-driven pedagogy*. Coursera Partners Conference. Orange County, CA. March 2015.
8. Çetinkaya-Rundel. *DataFest - A Celebration of Data*. Analytics Forward Unconference. Durham, NC. March 2015.
9. Çetinkaya-Rundel, M. *Teaching to the Masses*. Joint Statistical Meetings. Boston, MA. August 2014.

10. Çetinkaya-Rundel, M., Bray, A. *Teaching data analysis in R through the lens of reproducibility*. useR. Los Angeles, CA. June 2014. [poster]
11. Çetinkaya-Rundel, M., Bray, A. *Planting Seeds of Reproducibility in the Introductory Statistics Course with R Markdown*. eCOTS. May 2014.
12. Çetinkaya-Rundel, M. *Teaching data analysis in R through the lens of reproducibility*. JSM 2013. Montreal, QC. August 2013.
13. Stangl, D. Çetinkaya-Rundel, M. *Transforming Introductory Statistics Education: A Flipped Classroom with Deliberate Practice and Team-Based Learning*. United States Conference On Teaching Statistics. Raleigh, NC. May 2013.
14. Vidra, R., Çetinkaya-Rundel M., Gauthier, D. *Integrating Team-Based Learning Across Disciplines: Ideas and Challenges*. Lilly Conference on College and University Teaching. Greensboro, NC. February 2013.
15. Çetinkaya-Rundel M., Bray, A. *Integrating R into Introductory Statistics*. Joint Statistical Meetings. San Diego, CA. August 2012.
16. Çetinkaya-Rundel M., Bray, A. *Integrating R into Introductory Statistics*. useR. Nashville, TN. June 2012.
17. Çetinkaya-Rundel M. *Getting involved with OpenIntro*. Joint Statistical Meetings. Miami, FL. August 2011.
18. Çetinkaya-Rundel M. *Small area estimation approach to estimating the association between traffic-generated air pollution and early childhood respiratory problems*. Joint Statistical Meetings. Vancouver, BC. August 2010.

Teaching

Duke University

1. ARTSCI 101 - From Data to Insight — Summer 2016
2. STA 102 - Introduction to Biostatitics — Summer 2016
3. STA 101 - Data Analysis and Statistical Inference — Spring 2016, Fall 2015, Spring 2015, Fall 2014, Fall 2013, Spring 2013, Fall 2012, Spring 2012, Fall 2011
4. STA 104 - Data Analysis and Statistical Inference (Online) — Summer 2015, Summer 2014, Summer 2013
5. STA 112FS - Better Living Through Data Science — Fall 2015, Fall 2014
6. FOCUS 195FS - Special Topics in Focus — Fall 2015, Fall 2015, Fall 2014
7. STA 498 - Research Seminar in Statistical Science — Spring 2014
8. STA 470/851 - Intro Statistical Consulting — Fall 2013, Spring 2013, Fall 2012
9. STA 582 - DataFest — Spring 2016
10. STA 771S - Teaching Statistics — Spring 2016

Coursera

1. Statistics with R Specialization, available on demand, including the following courses: Introduction to Probability and Data, Inferential Statistics, Linear Regression and Modeling, Bayesian Statistics, Statistics Capstone Project
2. Data Analysis and Statistical Inference — September 2014, February 2014, March 2015, September 2015
3. Teaching Statistical Thinking, Part 1 — October 2014
4. Specialization in Reasoning, Data Analysis and Writing — January 2015

University of California, Los Angeles

5. Stats 10 - Introduction to Statistical Reasoning Spring 2011, Winter 2011 (Extension), Fall 2010 (Extension), Summer 2010, Summer 2009
6. Stats 112 - Statistical Methods for Social Sciences Winter 2011
7. Stats 98T - More Doctors Smoke Camels (Seminar) Spring 2010
8. AP Readiness - Statistics September 2009 - May 2011
9. Statistical Consulting Center Mini-courses April 2009 - June 2011

Software

1. **Çetinkaya-Rundel, M.**, Cohen, B. (2014) Applets for statistics education.
2. Diez, D.M., Barr, C.D. & **Çetinkaya-Rundel, M.** (2012). `openintro`: Open Intro data sets and supplement functions. R package version 1.4.

Service to Profession

ASA Council of Sections Representative for the Section on Statistical Computing, 2016 - 2018

ASA Statistical Commons Committee, 2015 - present

ASA DataFest Steering Committee, 2014 - present

AP Statistics Test Development Committee, June 2015 - present

ScienceOpen Editorial Board Member, 2014 - present

Local organizer for the inaugural Women In Statistics conference

Journal Reviews: PeerJ, Statistics, Politics, and Policy, The American Statistician, Journal of Statistical Education

Book Reviews: Cambridge University Press, Chapman & Hill

University & Department Service

ASA DataFest@Duke Organizer, 2012 - present

Faculty Advisor for the Statistical Science Undergraduate Majors Union, 2013 - present

Females Excelling More in Math, Engineering, & Science (FEMMES) Capstone, 2012 - present

StatSci Graduate Orientation: Computing Bootcamp, 2015

StatSci Graduate Orientation: Teaching Assistant Training, 2012 - present

StatSci TA of the Year Award Committee, 2013 - present

Online Learning Advisory Committee, 2012 - 2013

Mentoring

Undergraduate thesis advisees:
1. Meghan Scanlon, 2014 - 2015, 2. Avi Moondra, 2014 - 2015, 3. Ted Li, 2012 - 2013

Doctoral thesis committee:
1. Ksenia Kyzyurova, 2013 - present, Thais Paiva, 2012 - 2014, 3. Maria Terres, 2012 - 2014

Independent study:
1. Srinivas Emandi, 2016, 2. Kshipra Hemal, 2014 - 2015, 3. Anthony Weishampel, 2013 - 2015, 5. Heather Shapiro, 2013 - 2015, 6. Brittany Cohen, 2013 - 2014

Major advising, 2012 - present (12 students)
Minor advising, 2015 - present (36 students)
Pre-major Advising, 2012 - present (21 students)

Academic & Professional Experience

Professional Educator — July 2016 - present
RStudio

Developing educational materials for the interactive data visualization R package Shiny as well as other RStudio products.

Senior Statistical Consultant — March 2009 - June 2011
Statistical Consulting Center, UCLA

Provided statistical consulting to academic researchers, graduate students, non-profit organizations and companies in addition to developing and teaching mini-courses.

Graduate Student Researcher — June 2008 - September 2009
School of Public Health, UCLA

Helped refine the underlying micro-simulation models for health forecasting, contributed to health impact analyses and provided statistical consulting within the research group.

Actuarial Associate — June 2004 - August 2006
Buck Consultants, New York, NY

Prepared actuarial valuations, benefit calculations and cost estimates, worked on mergers and acquisitions, early retirement windows, benefit plan strategy and design, plan terminations, regulatory compliance and non-discrimination testing.

Professional Affiliations

American Statistical Association
International Society for Bayesian Analysis