**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 Professor of the Practice

June 2021 - present

Duke University - Department of Statistical Science

Director of Undergraduate Studies

July 2021 - present

Duke University - Department of Statistical Science

Previously also July 2015 - December 2018

Senior Lecturer April 2019 - May 2021

University of Edinburgh - School of Mathematics

Associate Professor of the Practice July 2016 - June 2021

Duke University - Department of Statistical Science (On leave during the 2019 - 2021 academic years)

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

- Çetinkaya-Rundel M., Hardin J. OpenIntro: Introduction to Modern Statistics (1st Ed). 2021.
- 2. Diez D.M., **Cetinkaya-Rundel M.**, Barr C.D. OpenIntro: Statistics (4th Ed). 2019.
- 3. Diez D.M., **Çetinkaya-Rundel M.**, Dorazio, L., Barr C.D. *OpenIntro: Advanced High School Statistics (2nd Ed)*. 2019.
- 4. Clyde M., **Çetinkaya-Rundel M.**, Rundel C., Banks D., Chai C., Huang L. *An Introduction to Bayesian Thinking A Companion to the Statistics with R Course.* 2017.
- 5. Diez D.M., Barr C.D., **Çetinkaya-Rundel M.** OpenIntro: Introductory Statistics with Randomization and Simulation (1st Ed). 2014.

Publications: Book Chapter

 Albert J., Hu M., Çetinkaya-Rundel M.. Online Statistics Teaching and Learning. Teaching and Learning Mathematics Online. Edited by James P. Howard, II and John F. Beyers. CRC Press. 2020.

Publications:
Peer Reviewed &
Invited Papers

(\* indicates undergraduate students)

2. **Çetinkaya-Rundel M.**, Ellison T. A Fresh Look at Introductory Data Science. *Journal of Statistics Education*.

doi: 10.1080/10691898.2020.1804497.

- 3. Dogucu, M., **Çetinkaya-Rundel M.**, Web Scraping in the Statistics and Data Science Curriculum: Challenges and Opportunities. *Journal of Statistics Education*. doi: 10.1080/10691898.2020.1787116.
- Beckman, M., Çetinkaya-Rundel M., Horton, N., Rundel, C., Sullivan, A., Tackett, M. Implementing version control with Git and GitHub as a learning objective in statistics and data science courses. *Journal of Statistics Education*. doi: doi.org/10.1080/10691898.2020.1848485.
- Baumer B., Bray A., Çetinkaya-Rundel M., Hardin J. (2020) Teaching Introductory Statistics with DataCamp, *Journal of Statistics Education*. 28.1: 89-97. doi: 10.1080/10691898.2020.1730734.
- Robinson J., Manturuk K. R., Çetinkaya-Rundel M., Canelas, D. A. (2018) Analysis
  of adult learner sense of community in online classes, *Digital Universities V.5: Interna-*tional Best Practices and Applications. (1-2), 163.
  Link to paper.
- 7. **Çetinkaya-Rundel M.**, Rundel C. (2018) Infrastructure and tools for teaching computing throughout the statistical curriculum. *The American Statistician*, 72(1), 58-65. doi: 10.1080/00031305.2017.1397549.
- 8. Prakalapakorn S.G., Freedman S.F., Hutchinson A.K., Saehout, Çetinkaya-Rundel M., Wallace D.K., and Kulvichit K. (2017) Real-world simulation of an alternative retinopathy of prematurity screening system: telemedicine grading of images obtained by a health care worker using a portable, non-contact digital fundus camera in Thailand: a pilot study. Journal of Pediatric Ophthalmology and Strabismus, 29, 1-9. doi: 10.3928/01913913-20180327-04.
- 9. Shapiro H. B.\*, Lee C. H.\*, Roth N. E. W., Li K., **Çetinkaya-Rundel M.**, & Canelas D. A. (2017). Understanding the massive open online course (MOOC) student experience: An examination of attitudes, motivations, and barriers. *Computers & Education*, 110, 35-50. doi: 10.1016/j.compedu.2017.03.003.
- 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. 24(23). doi: 10.1016/j.cub.2014.10.039.
- 11. 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). escholarship.org/uc/item/90b2f5xh.
- 12. **Çetinkaya-Rundel M.**, Diez D.M., Barr C.R. (2013) OpenIntro Statistics: an Opensource Textbook. *Technology Innovations in Statistics Education*, 7(3). escholarship.org/uc/item/6ms0x5nf.
- 13. Çetinkaya-Rundel M., Diez D.M., Barr C.R. (2013) Response: C-RDB. Technology Innovations in Statistics Education, 7(3). escholarship.org/uc/item/44d7748d.
- 14. Gould R., and Çetinkaya-Rundel M. Teaching Statistical Thinking in the Data Deluge. (2014) Mit Werkzeugen Mathematik und Stochastik lernen Using Tools for Learning Mathematics and Statistics. Springer Fachmedien Wiesbaden. 377-391. doi: 10.1007/978-3-658-03104-6\_27.
- 15. 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.
- 16. 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. doi: 10.1353/hpu.2011.0120.

## Publications: In-review Papers

- 17. **Çetinkaya-Rundel M.**, Dogucu M. The 5Ws and 1H of Final Projects in the Introductory Data Science Classroom.
- 18. **Çetinkaya-Rundel M.**, Rundel C., Hardin J., McNamara A., Baumer B., Horton N. *An educator's perspective of the tidyverse*.

## Publications: Papers In Preparation

(\* indicates undergraduate students)

- 19. Feder B.\*, **Çetinkaya-Rundel M.** Creativity in Open-Ended Data Analysis Projects and the Tidyverse.
- Çetinkaya-Rundel M., Dogucu M., Ricci F.Z., Rundel C. Timbers T. Auto-feedback in data science assignments.

# Publications: Other

- 21. Gould R., Çetinkaya-Rundel M., Zieffler A. (2013 present) Citizen-Statistician blog
- 22. **Çetinkaya-Rundel M.**, Tackett M. (2020) COVID-19 Data in the Classroom , Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 33, No. 3. On GitHub.
- 23. **Çetinkaya-Rundel M.**, Tackett M. (2020) From Drab to Fab: Teaching Visualization via Incremental Improvements, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 33, No. 2. On GitHub.
- Çetinkaya-Rundel M. (2017) DataFest Shows Spike in Growth, Provides Immersive Experience, STATtrak.
- 25. **Çetinkaya-Rundel M.**, Stangl D. (2017) An Interview with Mine Çetinkaya-Rundel, Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 30, No. 2.
- Rundel C., Çetinkaya-Rundel M., (2016) La Quinta is Spanish for "Next to Denny's", Chance Magazine Statistics Education Column, Taking a Chance in the Classroom. Vol. 29, No. 2.
- 27. Gould R., Baumer, B., **Çetinkaya-Rundel M.**, Bray A. (2014) *Big Data Goes to College*, AMSTAT News. Issue 444.
- 28. Behseta S., **Çetinkaya-Rundel M.** (2014) *Interview with Jim Berger*, Chance Magazine. Vol. 27, No. 2.
- 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.
- 30. 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.
- 31. 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.
- 32. 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.
- 33. 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.

- 34. **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.
- 35. **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.
- 36. 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.
- 37. **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.
- 38. **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.
- 39. 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.

# Honors & Awards

The Robert V. Hogg Award For Excellence in Teaching Introductory Statistics, 2021.

Young Academy of Scotland Elected Member, 2020.

Teacher of the Year Nominee. University of Edinburgh, 2020.

American Statistical Association Fellow, 2019.

International Statistical Institute Elected Membership, 2019.

Harvard Pickard Award, 2018.

ASA Waller Education Award, 2016.

Best Paper Award JSM 2015 Section on Teaching Statistics in the Health Sciences.

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

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

National Science Foundation. Preparing Graduate Students for Careers in Teaching Statistics and Data Science Role: Co-PI. (2018)

Howard Hughes Medical Institute. *The COMPASS PROJECT*. Role: Co Investigator. (2017 - 2019)

National Science Foundation. Collaborative Research: Accelerating the Pace of Research and Implementation of Writing-to-Learn Pedagogies Across STEM Disciplines Role: Key Faculty. (2015 - 2020)

Duke University Intellectual Community Planning Grant for Women in Quantitative Sciences Initiative. (2016 - 2017). \$4,000.

Duke University BASS Connections Education & Human Development Grant for *STEM For All.* (2015 - 2017). Role: Principal Investigator. Co-PI: Genna Miller (Department of Economics, Duke University). \$15,000 each year.

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 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

- Çetinkaya-Rundel M. Introduction to data science, for all, online. RSS 2021. Online. September 2021.
- Çetinkaya-Rundel M. Building, Sustaining, Supporting, and Growing Open-Source Educational Resources. JSM 2021. Online. August 2021.
- 3. **Çetinkaya-Rundel M.** Building and maintaining the OpenIntro using the R ecosystem. useR 2021. Online. July 2021.
- 4. **Çetinkaya-Rundel M.** Tidyverse ile veri bilimi. Bogazici University. Online. April 2021. (Turkish)
- 5. **Çetinkaya-Rundel M.** Teaching R: Five Principles. University of Liverpool. Online. April 2021.
- Çetinkaya-Rundel M. Introductory data science, a fresh look. CSU Fullerton. Online. March 2021.
- Çetinkaya-Rundel M. Toolkit for the modern statistician. NISS. Online. March 2021.
- 8. **Çetinkaya-Rundel M.** In the beginning was R Markdown. Toronto Reproducibility Day. Online. February 2021.
- Çetinkaya-Rundel M. Introductory data science, a fresh look. JMM. Online. January 2021.
- 10. **Çetinkaya-Rundel M.** Improve your workflow for reproducible science. UCL Reproducibilitea. Online. November 2020.
- 11. **Çetinkaya-Rundel M.** The Art and Science of Teaching Data Science. University of Toronto. Online. November 2020.
- Çetinkaya-Rundel M. StatPREP Webinar: Data Science in a Box. Online. October 2020.
- 13. **Çetinkaya-Rundel M.** Once pastayi yesinler! Toplumsal Bilimler Iin Temel R Egitimi. Online. October 2020. (Turkish)
- 14. **Çetinkaya-Rundel M.** Growing your inner data scientist Future Conference, University of Edinburgh. Online. October 2020.
- 15. Çetinkaya-Rundel M. Models for Mentoring (Panel). JSM. Online. August 2020.
- 16. LaLonde D., **Çetinkaya-Rundel M.**, Ensor K., Glickman M. Ferres J.L., Wang M. Data Science and the ASA: Moving Forward Together (Panel). Online. August 2020.
- 17. **Çetinkaya-Rundel M.** Breaking it down, and building it back up again. Teaching and Learning Statistics Online. Online. July 2020.
- 18. **Çetinkaya-Rundel M.** The Art and Science of Teaching Data Science. University of Glasgow. Online. July 2020.
- 19. **Çetinkaya-Rundel M.** The results in Table 1 don't seem to correspond to those in Figure 2. Tesco. Online. June 2020.
- Çetinkaya-Rundel M. Tidy up your data science workflow with the tidyverse. R-Ladies Istanbul / Ankara / Eskisehir. Online. May 2020.

- 21. **Çetinkaya-Rundel M.** The results in Table 1 don't seem to correspond to those in Figure 2. PyData Edinburgh. Online. May 2020.
- 22. **Çetinkaya-Rundel M.** The Art and Science of Teaching Data Science. Data Literacy Network Call. Online. March 2020.
- 23. **Çetinkaya-Rundel M.** The Art and Science of Teaching Data Science. Data Science for Industry Practitioners. Online. March 2020.
- 24. **Çetinkaya-Rundel M.** Tidy up your data science workflow with the tidyverse. R-Ladies Istanbul / Ankara / Eski?ehir. London, UK. February 2020.
- Çetinkaya-Rundel M. The Art and Science of Teaching Data Science. Department of Statistics at University College. London, UK. February 2020.
- 26. Çetinkaya-Rundel M. The Art and Science of Teaching Data Science. The Centre for Research into Ecological and Environmental Modelling at the University of St. Andrews. St. Andrews, Scotland. February 2020.
- 27. **Çetinkaya-Rundel M.** Let them eat cake (first)!. Community of Edinburgh Research Software Engineers meeting. Edinburgh, Scotland. February 2020.
- 28. **Çetinkaya-Rundel M.** From reproducibility to interactivity. Glasgow R Meetup. Glasgow, Scotland. February 2020.
- Çetinkaya-Rundel M. ggplot2: From first draft to publication-ready. Max Planck School of Cognition. Berlin, Germany. January 2020.
- 30. **Çetinkaya-Rundel M.** Tidy up your data science workflow with the tidyverse. R-Ladies Lausanne. Lausanne, Switzerland. February 2020.
- 31. **Çetinkaya-Rundel M.** From reproducibility to interactivity. NHS Scotland R Day. Edinburgh, Scotland. February 2020.
- 32. **Çetinkaya-Rundel M.** R4All: Welcoming and inclusive practices for teaching R. Cardiff SatRdays. Cardiff, UK. October 2019. (Keynote)
- 33. **Çetinkaya-Rundel M.** R4All: Welcoming and inclusive practices for teaching R. Latin R. Santiago, Chile. September 2019. (Keynote)
- 34. **Çetinkaya-Rundel M.** Workflows for reproducible data science. The SFI Centre for Research Training in Genomics Data Science Supervisor Workshop. Galway, Ireland. September 2019. (Pleanary)
- 35. **Çetinkaya-Rundel M.** Growing your inner data scientist. The SFI Centre for Research Training in Genomics Data Science Supervisor Workshop. Galway, Ireland. September 2019. (Pleanary)
- 36. **Çetinkaya-Rundel M.** R & GitHub Sitting In a Tree. ITiCSE 2019. Aberdeen, UK. June 2019.
- 37. **Çetinkaya-Rundel M.** The results in Table 1 don't seem to correspond to those in Figure 2. ISCB RSG Turkey. August 2019. (Webinar)
- 38. **Çetinkaya-Rundel M.** R & GitHub Sitting In a Tree. ITiCSE 2019. Aberdeen, UK. June 2019.
- 39. **Çetinkaya-Rundel M.** Let them eat cake (first)!. Carpentry Connect 2019. Manchester, UK. June 2019. (Keynote)
- 40. **Çetinkaya-Rundel M.** Let them eat cake (first)!. Center for Statistics at University of Edinburgh. Edinburgh, UK. June 2019.
- 41. **Çetinkaya-Rundel M.** The results in Table 1 don't seem to correspond to those in Figure 2. Connect IPSDS. Mannheim, Germany. May 2019. (Keynote)
- 42. **Çetinkaya-Rundel M.** The results in Table 1 don't seem to correspond to those in Figure 2. University of Cincinnati. April 2019.
- 43. **Çetinkaya-Rundel M.** Intro to Data Science: Case by Case. ENAR 2019. Philadelphia, PA. March 2019.

- 44. **Çetinkaya-Rundel M.** The results in Table 1 don't seem to correspond to those in Figure 2. DataTech 2019. Edinburgh, UK. April 2019. (Keynote)
- 45. **Çetinkaya-Rundel M. Share Contribute Collaborate Broadcast**. Duke Machine Learning Day. Duke University. Durham, NC. March 2019.
- 46. **Çetinkaya-Rundel M.** Building Bridges for Data Science. SIGCSE 2019. Minneapolis, MN. Feb 2019. (Panel)
- 47. **Çetinkaya-Rundel M.** Let them eat cake (first)!. Columbia University, Department of Biostatistics. New York, NY. Feb 2019.
- 48. **Çetinkaya-Rundel M.** Let them eat cake (first)!. Rice University, Department of Statistics. Houston, TX. Feb 2019.
- 49. **Çetinkaya-Rundel M.** Start with Data Science. IBM CSIG Weekly Update. Dec 2018.
- Çetinkaya-Rundel M. Let them eat cake (first)!. Harvard Pickard Lecture. Boston, MA. Nov 2018.
- Çetinkaya-Rundel M. Teaching Computing via Visualization. Duke University, Visualization Fridays. Durham, NC. Sep 2018.
- 52. **Çetinkaya-Rundel M.** Intro Stats and Data Science: Do we need both?. JSM. Vancouver, BC. August 2018.
- 53. **Çetinkaya-Rundel M.** Making your research reproducible: Documenting and automating your data analysis in R. UNC. Chapel Hill, NC. April 2018.
- Çetinkaya-Rundel M. Data Science as a Gateway to Statistics. ENAR. Atlanta, GA. Mar 2018.
- 55. Çetinkaya-Rundel M. We'll git there. SIGCSE. Baltimore, MD. Feb 2018.
- 56. Çetinkaya-Rundel M. R Markdown: 8 Ways. San Diego, SD. Jan 2018.
- Çetinkaya-Rundel M. Data Science, from the ground up. New College of Florida. Sarasota, FL. Nov 2017.
- 58. White L., **Çetinkaya-Rundel M.**, Lasch P., Zychowicz M., Chambers J. The Future of Online Education at Duke. Duke University. Durham, NC. Nov 2017.
- Bryan J., Çetinkaya-Rundel M., D'Agostino McGowan L., de Queiroz G., Dogucu M., Scranton K., Thompson J. R-Ladies Panel: Improving gender diversity in a maledominated community. WSDS. San Diego, CA. October 2017.
- Çetinkaya-Rundel M. A First-Year Undergraduate Data Science Course. JSM. Baltimore, MD. August 2017.
- 61. **Çetinkaya-Rundel M.** Teaching Data Science to new useRs. useR 2017. Brussels, Belgium. July 2017. (Keynote)
- 62. **Çetinkaya-Rundel M.** Teaching Data Science and Statistical Computation to Undergraduates. United States Conference On Teaching Statistics. State College, PA. May 2017. (Pleanary + Breakout session)
- Getinkaya-Rundel M. Open Education Resources. United States Conference On Teaching Statistics. State College, PA. May 2017.
- 64. **Çetinkaya-Rundel M.** Integrating reproducibility into the undergraduate statistics curriculum. Joint Statistical Meetings. Chicago, IL. August 2016.
- 65. **Cetinkaya-Rundel M.** Bayesian baby steps. OPRE, Washington, DC. April 2016.
- Getinkaya-Rundel M. Incorporating visualization into statistics education. Duke University. Durham, NC. March 2016.
- 67. **Çetinkaya-Rundel M.** Making your research reproducible with Project TIER, R, and GitHub. Duke University. Durham, NC. February 2016.

- 68. **Çetinkaya-Rundel M.** Making your research reproducible: Documenting and automating your data analysis in R. UNC L.L. Thurstone Psychometric Laboratory Methods Forum. Chapel Hill, NC. January 2016.
- Cetinkaya-Rundel M. Teaching to, and learning from, the masses. Joint Statistical Meetings. Seattle, WA. August 2015.
- 70. **Çetinkaya-Rundel M.** Expanding R Exposure through Early Introduction in the Undergraduate Curriculum. R Summit & Workshop. Copenhagen, Denmark. June 2015.
- 71. **Çetinkaya-Rundel M.** Coursera and the Future of MOOCs. Duke Library's First Wednesday forum. Durham, NC. May 2015.
- Çetinkaya-Rundel M., van Ginhoven S. Data Expedition: Exploring / Modeling / Predicting / Understanding Paintings in Paris. iiD Data Science Series. Durham, NC. April 2015.
- Çetinkaya-Rundel M. Bayesian baby steps. VA CSP Biostatistics Subdomain: April Methodology Call. April 2015.
- 74. **Çetinkaya-Rundel M.** There and back again: Data Analysis and Statistical Inference. CIT LTC. Durham, NC. March 2015.
- 75. **Çetinkaya-Rundel M.**, van Ginhoven S. Data Expedition: Exploring / Modeling / Predicting / Understanding Paintings in Paris. Duke Media Arts + Sciences Rendezvous. Durham, NC. January 2015.
- 76. **Çetinkaya-Rundel M.** Teaching data analysis through the lens of reproducibility. Reproducible Science Hackathon: Curriculum & Workflow Development. NESCENT. Durham, NC. December 2014.
- 77. **Çetinkaya-Rundel M.** See you / see me: An interactive real-time online course. Duke University CIT Showcase. Durham, NC. October 2014.
- 78. Çetinkaya-Rundel M. Panel on Teaching from Big Data. eCOTS. May 2014.
- 79. **Çetinkaya-Rundel M.** Increasing the Visibility of Women in Statistics. Women In Statistics Conference. Cary, NC. May 2014.
- 80. **Çetinkaya-Rundel M.** Statistical Modeling. Duke University, guest lecture in Focus Mathematical Modeling course. Durham, NC. March 2014.
- 81. **Çetinkaya-Rundel M.** See you / see me: An interactive real-time online course. Duke University CIT. Durham, NC. October 2013.
- 82. **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.
- 83. **Çetinkaya-Rundel M.**, Murphy K. Classroom Response Systems at Duke. CIT Showcase at Duke University. Durham, NC. April 2013.
- 84. 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 M.**. Customizing RMarkdown. satRday Nairobi 2021. Online. September 2021. [Video]
- Çetinkaya-Rundel M.. Going Live Live Coding as an (Incredibly) Effective Tool for Teaching Programming. USCOTS 2021. Online. June 2021.
- 3. **Çetinkaya-Rundel M.** and Yuster D. Tidy up your models. USCOTS 2021. Online. June 2021.
- 4. **Çetinkaya-Rundel M.** and Rand E. R Package Development. R Forwards Workshop. Online. February 2021.
- Çetinkaya-Rundel M. and Rand E. R Package Development. R Forwards Workshop. Online. February 2021.

- 6. **Çetinkaya-Rundel M.** Feedback at scale. rstudio::global(2021). Online. January 2021.
- Çetinkaya-Rundel M. Data Science in a Box. ADSA Conference. Online. October 2020.
- 8. **Çetinkaya-Rundel M.** R 4 All: Welcoming and inclusive practices for teaching R. University of Edinburgh Learning & Teaching Conference. Online. June 2020.
- 9. Orzechowski P., Desvages C., **Çetinkaya-Rundel M.**, Robertson, J. Paired programming: a model for teaching problem solving through peer-tutoring and collaboration. University of Edinburgh Learning & Teaching Conference. Online. June 2020.
- Çetinkaya-Rundel M. Remote Teaching: 3 Myths. Teaching and Learning Mathematics Online. Online. June 2020.
- 11. **Çetinkaya-Rundel M.** Feed me back now: Tales of automated feedback in R and Python. eCOTS. Online. May 2020.
- 12. **Çetinkaya-Rundel M.** Making the Shiny Contest. rstudio::conf(2020). San Francisco, CA. January 2020.
- 13. **Çetinkaya-Rundel M.** Let them eat cake (first)!. CETL-MSOR. Dublin, Ireland. September 2019.
- 14. **Çetinkaya-Rundel M.** Data Science in a Box. useR 2019. Toulouse, France. July 2019.
- Cetinkaya-Rundel M. Tech Talk: Frictionless onboarding to data science with RStudio Cloud. eCOTS 2018. May 2018.
- Teal T., Michonneau F., Çetinkaya-Rundel M. Data Carpentry: Teaching Reproducible Data Driven Discovery. useR 2017. Belgium, Brussels. July 2017.
- Cetinkaya-Rundel M. A first-year undergraduate data science course. useR 2016.
   Palo Alto, CA. July 2016.
- 18. **Çetinkaya-Rundel M.** Using R, RStudio, and Docker for introductory statistics. useR 2015. Aalborg, Denmark. July 2015.
- 19. Bray A., **Çetinkaya-Rundel M.** Collaborative statistics education through OpenIntro and GitHub. useR 2015. Aalborg, Denmark. July 2015. (Poster)
- Çetinkaya-Rundel M., Horton N. Connecting data, analysis, and results using a reproducible framework. United States Conference On Teaching Statistics. State College, PA. May 2015.
- 21. **Çetinkaya-Rundel M.** Raising better scientists. Duke Tech Expo 2015. Durham, NC. April 2015.
- 22. **Çetinkaya-Rundel M.** Interactivity online and on-campus: Data Analysis and Statistical Inference. Coursera Partners Conference. Orange County, CA. March 2015. (Poster)
- Çetinkaya-Rundel M. Data-driven pedagogy. Coursera Partners Conference. Orange County, CA. March 2015.
- 24. **Çetinkaya-Rundel M.** DataFest A Celebration of Data. Analytics Forward Unconference. Durham, NC. March 2015.
- Çetinkaya-Rundel M. Teaching to the Masses. Joint Statistical Meetings. Boston, MA. August 2014.
- 26. **Çetinkaya-Rundel M.**, Bray A. Teaching data analysis in R through the lens of reproducibility. useR. Los Angeles, CA. June 2014. (Poster)
- Çetinkaya-Rundel M., Bray A. Planting Seeds of Reproducibility in the Introductory Statistics Course with R Markdown. eCOTS. May 2014.
- 28. **Çetinkaya-Rundel M.** Teaching data analysis in R through the lens of reproducibility. JSM 2013. Montreal, QC. August 2013.

- 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.
- 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.
- 31. **Çetinkaya-Rundel M.**, Bray A. Integrating R into Introductory Statistics. Joint Statistical Meetings. San Diego, CA. August 2012.
- 32. **Çetinkaya-Rundel M.**, Bray A. Integrating R into Introductory Statistics. useR. Nashville, TN. June 2012.
- Çetinkaya-Rundel M. Getting involved with OpenIntro. Joint Statistical Meetings. Miami, FL. August 2011.
- 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

#### University of Edinburgh

1. Introduction to Data Science

Fall 2020, Fall 2019

### Duke University

- 1. 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
- 2. STA 102 Introduction to Biostatistics

Summer 2016

3. STA 104 - Data Analysis and Statistical Inference (Online)

Summer 2015,

4. STA 112FS - Better Living Through Data Science

Summer 2014, Summer 2013

Fall 2018, Fall 2017, Fall 2015,

Fall 2014

 $5.\,$  STA 199 - Introduction to Data Science and Statistical Thinking

Spring 2018

6. STA 313 - Advanced Data Visualization

Fall 2020

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

Fall 2018, Spring 2016

11. FOCUS 195FS - Special Topics in Focus

Fall 2018, Fall 2015, Fall 2015, Fall 2014

12. ARTSCI 101 - From Data to Insight

Summer 2016

#### Workshops and Short courses

- 13. What they forgot to teach you about teaching R. rstudio::global(2021). Online. January 2021.
- 14. Shiny Essentials ASA Traveling Course. Online.
  - ASA Connecticut Chapter (September 2020)
  - ASA Boston Chapter (October 2020)
  - ASA Southern California Chapter (October 2020)
  - ASA Florida Chapter (November 2020)
- 15. Teaching Statistics and Data Science Online. Online. 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
- 16. Preparing for Careers in Teaching Statistics and Data Science. Co-taught with Chance B., Rossman A., Hardin J., Genschel U., McGowan L. Online. May 2020.
- 17. Designing the Data Science Classroom. rstudio::conf(2020). San Francisco, CA. January 2020.
- 18. Building multivariate visualizations with ggplot2. Max Planck School of Cognition. Berlin, Germany. January 2020.
- Advanced Shiny. Swiss Institute Biostatistics. Lausanne and Zurich, Switzerland. November 2019.
- 20. Teaching Data Science. Latin R 2019. Santiago, Chile. September 2019.
- 21. Teaching Data Science. JSM 2019. Denver, CO. July 2019.
- Preparing for Careers in Teaching Statistics and Data Science. Co-taught with Chance B., Rossman A., Horton N., Genschel U. Fort Collins, CO. July 2019.
- 23. Version control with git and R. Connect IPSDS. Mannheim, Germany. May 2019.
- 24. Data visualization with ggplot2. University of Cincinnati. April 2019.
- 25. Data visualization with ggplot2. R-Ladies Edinburgh. Edinburgh, UK. March 2019.
- 26. Computing Infrastructure and Curriculum Design for Introductory Data Science. SIGCSE 2019. Minneapolis, MN. February 2019.
- 27. Train-the-trainer: Shiny. rstudio::conf 2019. Austin, TX. Jan 2019.
- 28. Version Control with git and R. R-Ladies LA. Los Angeles, CA. December 2018.
- Dashboards and Apps with Shiny. R-Ladies Philadelphia. Philadelphia, PA. October 2018.
- Build > Improve > Share: Apps and Dashboards with Shiny. WSDS 2018. Cincinnati, OH. October 2018.
- 31. Shiny Essentials. R/Medicine 2018. New Haven, CT. September 2018.
- 32. Shiny Essentials. JSM 2018. Vancouver, BC. August 2018.
- 33. Preparing for Careers in Teaching Statistics and Data Science. Co-taught with Chance B., Rossman A., Horton N., Genschel U. Vancouver, BC. August 2018.
- 34. Teaching Data Science, Reproducibly. Co-taught with Rundel C. ICOTS 2018. Kyoto, Japan. July 2018.
- Reproducible Computing. Co-taught with Rundel C. ISBA 2018. Edinburgh, Scotland. June 2018.
- 36. Shiny Essentials. SDSS 2018. Reston, VA. May 2018.
- 37. Intro to Shiny and R Markdown. rstudio::conf 2018. San Diego, CA. Jan 2018.
- 38. Data Carpentry: Open and Reproducible Research with R. Co-taught with Rundel C., Michonneau F. useR 2017. Belgium, Brussels. July 2017.
- 39. R-Ladies RTP: Functional programming with purrr. Co-taught with McVey E. RTP, NC. October 2017.
- 40. Intermediate Shiny. Genentech. San Francisco, CA. May 2017.
- 41. SSNAP Workshop: (1) Introduction to Data, (2) Statistical Inference, (3) Reproducible Computing. Duke University. Durham, NC. May 2017.
- 42. R-Ladies RTP: R / git / GitHub. Duke University. Durham, NC. Feb 2017.
- 43. R-Ladies RTP: Everything R Markdown. Duke University. Durham, NC. Dec 2016.
- 44. R-Ladies RTP: Data Manipulation. Duke University. Durham, NC. September 2016.
- 45. Connecting data, analysis, and results using a reproducible framework. Co-taught with Horton N. USCOTS 2015. State College, PA. May 2015.

#### DataCamp

- 46. Introduction to Data
- 47. Inference for Numerical Data
- 48. Building Web Applications in R with Shiny

#### Coursera

- 49. 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
- 50. Data Analysis and Statistical Inference

September 2014, February 2014,

March 2015, September 2015

51. Teaching Statistical Thinking, Part 1

- October 2014
- 52. Specialization in Reasoning, Data Analysis and Writing

January 2015

University of California, Los Angeles

- 53. Stats 10 Introduction to Statistical Reasoning Spring 2011, Winter 2011 (Extension), Fall 2010 (Extension), Summer 2010, Summer 2009
- 54. Stats 112 Statistical Methods for Social Sciences

Winter 2011

55. Stats 98T - More Doctors Smoke Camels (Seminar)

Spring 2010

56. AP Readiness - Statistics

September 2009 - May 2011

57. Statistical Consulting Center Mini-courses

April 2009 - June 2011

#### Software

- Çetinkaya-Rundel, M., Diez D., Bray A., Kim A., Baumer B., Ismay C., Barr C. (2020) openintro: Data Sets and Supplemental Functions from OpenIntro Textbooks and Labs.
- 2. **Cetinkaya-Rundel**, M. (2020) dsbox: Data Science Course in a Box.
- 3. Bray A., Ismay C., Chasnovski E., Baumer B., **Çetinkaya-Rundel, M.** (2020) infer: Tidy Statistical Inference.
- 4. Rundel C., **Çetinkaya-Rundel**, M., Anders T. (2020) ghclass: Tools for Managing Classes on GitHub.
- 5. **Çetinkaya-Rundel, M.**, Diez D. (2020) cherryblossom: Cherry Blossom Run Race Results.
- 6. Çetinkaya-Rundel, M. (2020) airports: Data on Airports.
- 7. **Çetinkaya-Rundel, M.**, Diez D. (2020) usdata: Data on the States and Counties of the United States.
- 8. **Çetinkaya-Rundel, M.**, (2017) thesisdowndss: An updated R Markdown thesis template using the bookdown package to create undergraduate theses for Duke Statistical Science
- 9. **Çetinkaya-Rundel**, M., Cohen, B. (2014) Applets for statistics education.

## SERVICE TO PROFESSION

ASA Section on Statistical Computing, Chair-Elect, 2021

ISBA Continuing Education Committee, 2021 - present

ASA ABET Program Evaluator, 2021 - present

COPSS Leadership Academy Award Selection Committee, 2020 - present

ASA Section on Statistics and Data Science Education Mentor, 2020 - present

ASA Section on Statistics and Data Science Education Fellows Committee, 2020 - present

STEM + C3 LAUSD Teacher Residency Program Advisory Board, 2020 - present

R-Forwards Education Team Lead, 2020 - present

Preparing to Teach, Organizer, 2018 - present

ASA DataFest Steering Committee, Co-chair, 2014 - present

R-Ladies Edinburgh Organizer, 2019 - 2021

Chance Magazine Statistics Education Column: Taking a Chance in the Classroom, 2012 - present

Harvard Data Science Review, Associate Editor, 2019 - present

SIAM Review Section on Education, Editorial Board, 2020 - present

ScienceOpen Editorial Board Member, 2014 - present

Caucus for Women in Statistics, Program Committee, 2020 - 2021

The University of Texas at Austin, Dana Center Statistics Advisory Group - 2020

ASA Ad-Hoc Committee on Data Science, 2019 - 2020

ASA Section on Statistics and Data Science Education, Chair, 2019

ASA Data Science Education Working Group, Chair, 2018 - 2019

Two-Year College Data Science Summit Participant, 2018

rOpenSci Reproducible Research Fellowship Review, 2017

R-Ladies RTP Organizer, 2016 - 2019

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

AP Statistics Test Development Committee, 2015 - 2019

ASA Statistical Commons Committee, 2015 - 2018

Journal Reviews: The American Statistician; Journal of Statistical Education; Harvard Data Science Review; Peer J; PLOS; ScienceOpen; Statistics, Politics, and Policy; Teaching Mathematics; Technological Innovations in Statistics Education; WIRE Computational Statistics; Teaching Mathematics and Its Applications; Communications of the ACM.

Book Reviews: Cambridge University Press, Chapman & Hill

# UNIVERSITY & DEPARTMENT SERVICE

Duke University

ASA DataFest@Duke Organizer, 2012 - present

StatSci Director of Undergraduate Studies, 2015 - 2018

StatSci Honors Thesis Advising, 2017 - 2018

StatSci Graduate Orientation: Computing Bootcamp, 2015 - 2018

StatSci TA of the Year Award Committee, 2013 - 2018

StatSci Statistical Science Undergraduate Majors Union Faculty Advisor, 2013 - 2018

StatSci Graduate Orientation: Teaching Assistant Training, 2012 - 2018

Library Council, 2017 - present

Provost's Advisory Committee on Online Education, 2017 - present

DUS Executive Committee, 2017 - 2018

Ad Hoc Committee on Faculty Rank Distribution, 2017 - 2018

Arts & Sciences Council Representative, 2016

Females Excelling More in Math, Engineering, & Science (FEMMES) Capstone, 2012 - 2018

Online Learning Advisory Committee, 2012 - 2013

#### University of Edinburgh

COVID Response Tech Support Working Group, 2020

MSc Project Leader, 2019 - 2021

Bayes Education Group, 2019 - 2021

ASA DataFest@Edinburgh Organizer, 2019 - 2021

#### Advising

## Undergraduate thesis advisees:

- 1. Sasha Dunstan, 2020 2021 (UoE)
- 2. Tanya Mittal, 2019 2020 (UoE)
- 3. Ben Feder, 2018 2019 (Duke)
- 4. Anne Driscoll, 2017 2018 (Duke)
- 4. Meghan Scanlon, 2014 2015 (Duke)
- 5. Avi Moondra, 2014 2015 (Duke)
- 6. Ted Li, 2012 2013 (Duke)

#### Doctoral thesis committee:

- 1. Kelly Moran, 2019 (Duke)
- 2. Lindsay Berry, 2019 (Duke)
- 3. Ksenia Kyzyurova, 2013 2017 (Duke)
- 4. Lan Wei, 2016 (Duke)
- 5. Thais Paiva, 2012 2014 (Duke)
- 6. Maria Terres, 2012 2014 (Duke)

# Independent study:

- 1. Sibora Seranaj, 2019 (Duke)
- 2. Revogatus Tesha, 2019 (Duke)
- 3. Eidan Jacob, 2018 (Duke)
- 4. Matt Tribby, 2018 (Duke)
- 5. Elizabeth Ratliff, 2018 (Duke)
- 6. Jennifer Ling, 2016 2018 (Duke)
- 7. Brigid Burroughs, 2016 2018 (Duke)
- 8. Kameron Sedigh, 2017 2018 (Duke)
- 9. Aarthi Sridhar, 2017 2018 (Duke)
- 10. Amanda Levenberg, 2016 2017 (Duke)
- 11. Magdalena Vicente, 2015 2016 (Duke)
- 12. Srinivas Emandi, 2015 2016 (Duke)
- 13. Kshipra Hemal, 2014 2015 (Duke)
- 14. Anthony Weishampel, 2013 2015 (Duke)
- 15. Heather Shapiro, 2013 2015 (Duke)
- 16. Brittany Cohen, 2013 2014

# ACADEMIC & PROFESSIONAL EXPERIENCE

Data Scientist and Professional Educator RStudio

July 2016 - present

Developing educational materials for primarily tidyverse and shiny packages. Maintaining Data Science in a Box.

Providing training for RStudio Certified Instructor program: rstd.io/rit.

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

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

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

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 International Statistical Institute Mathematical Association of America Royal Statistical Society Young Academy of Scotland