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Education

09/2007	Harvard University, Cambridge, MA, Ph.D. Concentrations: Statistics and Environmental Health
06/2003	Ottawa-Carleton Institute for Mathematics and Statistics, Ottawa, Canada, M.Sc. Statistics
11/2001	McGill University, Montreal, Québec, Canada, B.Sc. Mathematics

Post-Graduate Training

10/2007-03/2010	Post-Doctoral Researcher, University of Chicago Department of Statistics and Argonne National Laboratory, Chicago, IL.

Professional Experience

07/2021–present	**Associate Professor, University of Toronto** Department of Statistical Sciences and School of the Environment, Toronto, ON
09/2018–07/2021	**Associate Professor, University of Southern California** Keck School of Medicine, Division of Biostatistics, Los Angeles, CA Dornsife College of Letters, Arts and Sciences, Spatial Sciences Institute
07/2017–07/2021	**Director of MS programs in Biostatistics, Health Data Science, and Epidemiology, University of Southern California** Keck School of Medicine, Department of Preventive Medicine, Los Angeles, CA
06/2010–09/2018	**Assistant Professor, University of Southern California** Keck School of Medicine, Division of Biostatistics, Los Angeles, CA
09/2005–06/2007	**Teaching Fellow, Harvard University** Faculty of Arts and Science & Harvard School of Public Health, Cambridge, MA
01/2002–10/2003	**Statistician, Federal Government of Canada** Health Canada, Biostatistics and Air Health Effects Directorates, Ottawa, ON

Selected Publications

[1] Cushing, L., Vavra-Musser, K., Chau, K., **Franklin, M.**, Johnston, J. Flaring from unconventional oil and gas development and increased risk of adverse birth outcomes in the Eagle Ford Shale in South Texas. *Environmental Health Perspectives*, 2020 doi:10.1289/EHP6394.

[2] Johnston, J., Chau, K., **Franklin, M.**, Cushing, L. Environmental Justice Dimensions of Oil and Gas Flaring in South Texas: Disproportionate Exposure among Hispanic communities. *Environmental Science & Technology*, 54(10):6289-6298, 2020.

[3] Sorek-Hamer, M., **Franklin, M.**, Chau, K., Garay, M., Kalashnikova, O. Spatiotemporal characteristics of the association between AOD and PM over the California Central Valley. *Remote Sensing*, 12(4), 2020.

[4] Chau, K., **Franklin, M.***, Gauderman, W. J. Satellite-Derived $PM_{2.5}$ Composition and Its Differential Effect on Children's Lung Function. *Remote Sensing*, 12(1028), 2020.
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[5] Li, L., **Franklin, M.**, Girguis, M., Lurmann, F., Wu, J., Pavlovic, N., Breton, C., Gilliland, F. Habre, R. Spatiotemporal Imputation of MAIAC AOD Using Deep Learning with Downscaling. *Remote Sensing of Environment*, 111584, 2020.

[6] **Franklin, M.**, Chau, K., Cushing, L., Johnston, J. Characterizing flaring from unconventional oil and gas operations in south Texas using satellite observations. *Environmental Science & Technology*, 53, 2220-2228, 2019.

[7] Johnston, J., **Franklin, M.**, Roh, H., Austin, C., Arora, M. Lead and Arsenic in Shed Deciduous Teeth of Children Living Near a Lead-Acid Battery Smelter. *Environment Science & Technology*,53(10): 6000-6006, 2019.

[8] **Franklin, M.**, Chau, K., Kalashnikova, O.V., Garay, M.J, Enebish, T., Sorek-Hamer, M. Using Multi-Angle Imaging SpectroRadiometer Aerosol Mixture Properties for Air Quality Assessment in Mongolia. *Remote Sensing* 10(8),1317, 2018.

[9] **Franklin, M.**, Kalashnikova, O., Garay, M., Fruin, S. Characterization of subgrid scale variability in particulate matter with respect to satellite aerosol observations. *Remote Sensing*, 10(4),623, 2018.

[10] Chen, W., Qian, L., Shi, J., **Franklin, M.** Comparing Performance between Log- Binomial and Robust Poisson Regression Models for Estimating Risk Ratios under Model Misspecification. *BMC Medical Research Methodology*, 18(63):1-12, 2018.

[11] **Franklin M.**, Fruin S. The role of traffic noise on the association between air pollution and children's lung function. *Environmental Research*, 157:153-159, 2017.

[12] **Franklin M.**, Kalashnikova O.V., Garay M.J. Size-resolved particulate matter concentrations derived from 4.4 km resolution size-fractionated Multi-angle Imaging SpectroRadiometer (MISR) aerosol optical depth over Southern California. *Remote Sensing of Environment*, 196:312-323, 2017.

[13] **Franklin M.**, Vora H., Avol E., McConnell R.S., Lurmann F., Liu F., Penfold B., Berhane K., Gilliland F., Gauderman W.J Predictors of intra-community variation in air quality. *Journal of Exposure Science and Environmental Epidemiology*, 22(2):135-47, 2012.

[14] Zanobetti A., **Franklin M.**, Koutrakis P., Schwartz J. Fine particulate air pollution and its components in association with cause-specific emergency admissions in 26 U.S. cities. *Environmental Health*, 8(58), 2009.

[15] **Franklin, M.**, Koutrakis, P., Schwartz, J The role of particle composition on the association between $PM_{2.5}$ and mortality. *Epidemiology*, 19(5):680–689, 2008.

[16] **Franklin, M.**, Schwartz, J. The impact of secondary particles on the association between ambient ozone and mortality. *Environmental Health Perspectives*, 116(4):453–458, 2008.

[17] **Franklin, M.**, Zeka A., Schwartz, J. Association between $PM_{2.5}$ and all-cause and specific-cause mortality in 27 US communities. *Journal of Exposure Science and Environmental Epidemiology*,17:279–287, 2007.