

COLIN S. RAYMOND

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Education

- Columbia University**, New York, NY 2019
Ph.D., Ocean and Climate Physics; Advisor: Dr. Radley Horton
- Cornell University**, Ithaca, NY 2014
B.S., Atmospheric Science, Magna cum laude with Distinction in Research

Publications

PEER-REVIEWED JOURNAL ARTICLES

- Raymond, C.**, Singh, D., and Horton, R. M. (2017). Spatiotemporal patterns and synoptics of extreme wet-bulb temperature in the contiguous United States. *J. Geophys. Res. Atmos.*, 122. <https://doi.org/10.1002/2017jd027140>.
- Horton, R. M., Mankin, J. S., Lesk, C., Coffel, E., and **Raymond, C.** (2016). A review of recent advances in research on extreme heat events. *Curr. Clim. Change Rep.*, 2, 242-259. <https://doi.org/10.1007/s40641-016-0042-x>.

JOURNAL ARTICLES SUBMITTED OR IN REVIEW

- Raymond, C.**, Matthews, T. K., and Horton, R. M. The emergence of heat and humidity too severe for human tolerance. In review at *Sci. Adv.*, Jun 2019.
- Raymond, C.**, and Mankin, J. S. Coastal moderation of extreme heat in the eastern United States. In review at *Geophys. Res. Lett.*, Jun 2019.

BOOK CHAPTERS

- Raymond, C.**, Coumou, D., Foreman, T., King, A., Kornhuber, K., Lesk, C., Mora, C., Perkins-Kirkpatrick, S., Russo, S., and Vijverberg, S. (2019). Projections and hazards of future extreme heat. In *Planning for Climate Change Hazards* [Pfeffer, T., and Smith, J., Eds.]. Oxford University Press.

CONFERENCE PROCEEDINGS

- Raymond, C.**, Matthews, T. K., and Horton, R. M. Exceptional heat-humidity combinations increasing faster than expected. Abstract of presentation at the American Meteorological Society Annual Meeting 2019, Phoenix, AZ. *Bull. Amer. Meteorol. Soc.*, 100 (3), 397-398.

Presentations

- Raymond, C.** Regional geographies of extreme heat. Invited seminar at Geophysical Fluid Dynamics Laboratory (Princeton, NJ). Jun. 2019.
- Raymond, C.** Regional geographies of extreme heat: New discoveries and approaches for its dry-bulb and wet-bulb flavors. Invited seminar at Lawrence Berkeley National Laboratory (Berkeley, CA). Jan. 2019.
- Raymond, C.**, Matthews, T. K. R., and Horton, R. M. Exceptional heat-humidity combinations in the observational record, and implications for projections. American Meteorological Society Annual Meeting 2019 (Phoenix, AZ). *Oral*.

- Raymond, C.**, and Mankin, J. S. Moderation of extreme heat along the coasts of the eastern United States. American Meteorological Society Annual Meeting 2019 (Phoenix, AZ). *Oral*.
- Raymond, C.**, Matthews, T. K. R., and Horton, R. M. Exceptional heat-humidity combinations in the observational record. American Geophysical Union Fall Meeting 2018 (Washington, DC). *Poster*.
- Raymond, C.**, Horton, R. M., and Singh, D. Spatiotemporal patterns and synoptics of extreme wet-bulb temperature in the contiguous United States. European Geophysical Union General Assembly 2018 (Vienna, Austria). *Oral*.
- Raymond, C.**, and Mankin, J. S. Climatological occurrence and projected changes of cold-shore days along the eastern coast of the United States. European Geophysical Union General Assembly 2018 (Vienna, Austria). *Poster*.
- Raymond, C.** Parameterization and projection of sea breezes in New York City. Rutgers Climate Symposium 2017 (New Brunswick, NJ). *Poster*.
- Raymond, C.**, and Horton, R. M. Sea breezes and New York City heat waves: interactions, effects, and predictability. American Meteorological Society Annual Meeting 2017 (Seattle, WA). *Oral*.
- Raymond, C.**, Horton, R. M., and Singh, D. Co-occurrence of extreme temperature and moisture over the continental United States. American Meteorological Society Annual Meeting 2017 (Seattle, WA). *Poster*.
- Raymond, C.**, and Horton, R. M. Predictability and spatial characteristics of New-York-City-area heat waves. American Geophysical Union Fall Meeting 2016 (San Francisco, CA). *Poster*.
- Raymond, C.**, and Ming, Y. (2014). Changes in precipitation extremes under two climate-change scenarios. American Meteorological Society Annual Meeting 2014 (Atlanta, GA). *Oral*.

Professional Service and Activities

- Workshop Co-Organizer:** *Workshop on Correlated Extreme Events* 2017-19
- Developed concept and structure, invited speakers, and organized logistics for 175-person international workshop at Columbia University in May 2019
- Session Chair,** American Geophysical Union Fall Meeting 2019 2019
- "Correlated climate extremes: drivers, mechanisms, and risks"
- Session Chair,** European Geophysical Union General Assembly 2019 2018-19
- "Extreme heat events: processes, impacts and adaptation"
- Working-Group Member,** Risk Knowledge Action Network: Compound Events 2019
- Session Chair,** AMS Student Conference Planning Committee 2015-16
- Expert Reviewer,** IPCC Special Report on 1.5 Degrees Draft 2017
- Journal Referee:** Journal of Geophysical Research: Atmospheres; Geophysical Research Letters; Environmental Research Letters; Journal of the American Planning Association; Environmental Research Communications

Fellowships and Awards

- PREEVENTS Conference Grant** (\$44,792), National Science Foundation 2019
- "Workshop on Correlated Extreme Events"; grant no. 1928623
- Herrenhausen Conference on Extreme Events Travel Grant** (~\$3,000), Volkswagen Foundation 2019
- Lead Teaching Fellowship** (\$2,000), Columbia University 2017-18
- Teaching Observation Fellowship** (\$2,000), Columbia University 2016-17
- Research Grant** (\$10,000), Columbia Climate Center 2015
- Dean's Fellowship** (\$78,000 annually), Columbia University 2014-19
- Hollings Scholarship** (\$8,000 annually), NOAA 2012-14

Teaching

Teaching Assistant, Dinosaurs and the History of Life Spring 2017
Teaching Assistant, Dynamics of Climate Variability and Climate Change Fall 2016
Teaching Assistant, Earth's Climate System Spring 2016

Outreach

Microteaching Facilitator, Columbia University 2018-19
ESL Conversation Partner, Catholic Charities International Center, New York, NY 2015-18
ESL Instructor, Catholic Charities International Center, New York, NY 2015-16
Graduate-Student Mentor, Columbia University 2015-16

Science Communication

Talks: AGU Pop-Up Talk on 'The Role of a Scientist in the 21st Century' Dec 2018
• Talk title: "Scientist As Liaison"
Publications: New York Times Op-Ed (with E. Coffel and R. Horton) Oct 2018
• Article title: "Heat and Humidity are a Killer Combination"
Interviews: Canadian Broadcasting Corporation Radio Jul 2016

Professional Memberships

American Meteorological Society, 2011-19 • **American Geophysical Union**, 2014-19
Urban Climate Change Research Network, 2017-19 • **Compound Events Network**, 2018-19

Campus Memberships

Chevron Student Initiative Fund Committee 2016-19
STEM Education Research Journal Club 2017-18

Languages and Models

Programming: MATLAB • Python • R • IDL • Fortran **Foreign:** French • Spanish

Personal

Website: www.regionalclimateperspectives.com

Discussion of topical issues in regional/urban climatology and related social sciences; analysis pertaining to recent weather events or noteworthy climate impacts; personal information and research highlights.

Github: www.github.com/cr2630git

Matlab and Python code supporting my various projects.

Twitter: @regclimo

Engagement around current weather and climate stories.