

# COLIN S. RAYMOND

Doctoral Candidate

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## Education

- Columbia University**, New York, NY Expected May 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.*, Dec. 2018.
- Raymond, C.**, and Mankin, J. S. Coastal moderation of extreme heat in the eastern United States. Submitted to *Geophys. Res. Lett.*, Dec. 2018.

### **BOOK CHAPTERS**

- Raymond, C.**, Coumou, D., Foreman, T., King, A., Kornhuber, K., Lesk, C., Mora, C., Perkins-Kirkpatrick, S., Russo, S., and Vijverberg, S. (2018). Projections and hazards of future extreme heat. In *Planning for Climate Change Hazards* [Pfeffer, T., and Smith, J., Eds.]. Oxford University Press.

## Presentations

- 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

**Journal Referee:** Journal of Geophysical Research: Atmospheres; Geophysical Research Letters; Journal of the American Planning Association

**Session Chair,** European Geophysical Union General Assembly 2019 2018-19  
• "Extreme heat events: processes, impacts and adaptation"

**Workshop Co-Organizer,** *Meteorology and Impacts of Correlated Climate Extremes* 2017-19  
• 100-person international workshop scheduled to take place at Columbia University in May 2019

**Expert Reviewer,** IPCC Special Report on 1.5 Degrees Draft 2017

**Session Chair,** AMS Student Conference Planning Committee 2015-16  
• Organized seminar topics, speaker invitations, and logistics for 2016 conference

### Fellowships and Awards

**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  
• Organized, ran, and graded labs for a freshman science course, and held office hours.

**Teaching Assistant,** Dynamics of Climate Variability and Climate Change Fall 2016  
• Graded assignments and held office hours for a Master's-level science course.

**Teaching Assistant,** Earth's Climate System Spring 2016  
• Organized, ran, and graded labs for a sophomore science course, and held office hours.

### 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**, 2011-18 • **American Geophysical Union**, 2014-18

**Urban Climate Change Research Network**, 2017-18 • **New York Academy of Sciences**, 2014-18

### **Campus Memberships**

**STEM Education Research Journal Club**

2017-18

**Chevron Student Initiative Fund Committee**

2016-18

**Columbia University Research-As-Art Colloquium Committee**

2014-15

### **Languages and Models**

**Programming:** MATLAB • Python • R • IDL • Fortran • STATA

**Foreign:** French • Spanish

**Models:** WRF

### **Personal**

**Website:** [www.regionalclimateperspectives.com](http://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](http://www.github.com/cr2630git)

Matlab and Python code supporting my various projects.

**Twitter:** @regclimo

Engagement around current weather and climate stories.