# **Biographical Sketch**

#### **Elinor Ruth Martin**

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### A. PROFESSIONAL PREPARATION

University of Reading	Reading, UK	Meteorology	BSc (Hons) 2005
Colorado State University	Fort Collins, CO	Atmospheric Science	MS 2007
Texas A&M University	College Station, TX	Atmospheric Science	PhD 2011
SUNY Albany	Albany, NY	Postdoctoral Associate	2011-2014

### **B. APPOINTMENTS**

2018 – present	Associate Director for Undergraduates, School of Meteorology, OU
2015 – present	Fellow, Cooperative Institute for Mesoscale Meteorological Studies (CIMMS)
2015 – present	Affiliate, South Central Climate Adaptation Science Center
2014 – present	Assistant Professor, School of Meteorology, University of Oklahoma, OK

### C. PRODUCTS

- (i) Most Closely Related to the Proposed Project
- 1. Flanagan, P.X., J.B. Basara, J.C. Furtado, **E.R. Martin**, and X. Xiao. 2019. Role of Pacific Sea Surface Temperatures in United States Great Plains Pluvial Years. *J. Climate*. (In Press)
- 2. **Martin, E.R.** 2018. Future Projections of Global Pluvial and Drought Event Characteristics. *Geophysical Research Letters*. 45:11913-11920. <a href="https://doi.org/10.1029/2018GL079807">https://doi.org/10.1029/2018GL079807</a>
- 3. Hu, X., M. Xue, R.A. McPherson, **E.R. Martin**, D.H. Rosendahl, L. Qiao. 2018. Improvement of Precipitation Dynamical Downscaling over the Great Plains and its Hydrological Application. *J. of Advances in Modeling Earth Systems*, 10. <a href="https://doi.org/10.1002/2017MS001154">https://doi.org/10.1002/2017MS001154</a>
- 4. Danco, J.F., and **E.R. Martin.** 2017. Understanding the Features and Mechanisms of the Great Plains Low-level Jet in CMIP5 Models. *Climate Dynamics*. 51:1537-1558. <a href="https://doi.org/10.1007/s00382-017-3970-9">https://doi.org/10.1007/s00382-017-3970-9</a>
- 5. **Martin, E. R.**, and C. Schumacher. 2011. Modulation of Caribbean Precipitation by the Madden-Julian Oscillation. *J. Climate*. 24:813-824. http://dx.doi.org/10.1175/2010JCLI3773.1

# (ii) Other Significant Products

- 1. Brannan, A.L., and **Martin, E.R.** 2018. Future Characteristics of African Easterly Wave Tracks. *Climate Dynamics*. https://doi.org/10.1007/s00382-018-4465-z
- 2. **Martin, E. R.,** and C. Thorncroft. 2014. Sahel Rainfall in Multimodel CMIP5 Decadal Hindcasts. *Geophys. Res. Lett.* 41:2169–2175. <a href="http://dx.doi.org/10.1002/2014GL059338">http://dx.doi.org/10.1002/2014GL059338</a>.
- 3. **Martin, E. R.**, C. Thorncroft and B.B.B. Booth. 2014. The Multidecadal Atlantic SST Sahel Rainfall Teleconnection in CMIP5 Simulations. *J. Climate*. 27:784-806. <a href="http://dx.doi.org/10.1175/JCLI-D-13-00242.1">http://dx.doi.org/10.1175/JCLI-D-13-00242.1</a>.
- 4. **Martin, E. R.**, and C. Schumacher. 2012. The Relationship between Warm Pool Precipitation, Sea Surface Temperature, and Large-scale Vertical Motion in IPCC AR4 Models. *J. Atmos. Sci.* 69:185-194. http://dx.doi.org/10.1175/JAS-D-11-0104.1
- Martin, E. R., and R. H. Johnson. 2008. An Observational and Modeling Study of an Atmospheric Internal Bore during NAME 2004. *Mon. Wea. Rev.* 136:4150–4167. <a href="https://doi.org/10.1175/2008MWR2486.1">https://doi.org/10.1175/2008MWR2486.1</a>

#### D. SYNERGISTIC ACTIVITIES

- Co-instructor and co-developer of interdisciplinary "Managing for a Changing Climate" course at the University of Oklahoma (OU) and on janux.ou.edu with over 700 total online registrations. Development included writing and recording over 50 short (6-10 minute) instructional videos with guest experts. Short videos are freely available on the South Central Climate Adaptation Center YouTube page. Course has also been implemented at Louisiana State University and will be taught at the University of Florida in 2019.
- Coordinator for OU University of Reading undergraduate meteorology exchange program.
  Oversee the exchange program include promotion and implementation. Sent and advised ~15 OU students to Reading and advised 44 University of Reading meteorology students studying at OU for a year.
- NSF REU at the National Weather Center: mentor (2017, 2018), selection committee member (2017, 2018, 2019), and presenter of a variety of professional development seminars.
- Co-organizer of a workshop held at the University of Oklahoma in July 2018 for stakeholders interested in extruded heavy precipitation events (through the PRES2iP project).
- Regular science expert and participant in the "Climate Change Expo" at Irvine Middle School in Norman, OK for 7<sup>th</sup> grade students as part of the science and social science curricula.