

## Eric Gilleland

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### Personal Preparation

Colorado State University, Fort Collins, Statistics, Ph.D., 2005  
Arizona State University, Tempe, Statistics, M.S., 1998  
University of Colorado, Boulder, Mathematics, B.A., 1996

### Appointments

12/03/2002—Present: Project Scientist I (10/30/2006—Present), Associate Scientist III (6/1/2006—10/30/2006), Associate Scientist II (12/03/2002—6/1/2006), Research Applications Laboratory, National Center for Atmospheric Research.

10/19/1998—12/03/2002—Student Assistant III/Graduate Research Assistant, Geophysical Statistics Project/Atmospheric Technology Division, National Center for Atmospheric Research.

### Research and Publications

Research interests include applied spatial and extreme value statistics, as well as forecast verification methodology.

#### Refereed publications

Gilleland, E., D. Ahijevych, B.G. Brown, B. Casati, and E.E. Ebert, 2009. Intercomparison of Spatial Forecast Verification Methods. Accepted to *Wea. Forecasting*.

Abeysirigunawardena DS, E Gilleland, D Bronaugh, 2009. Extreme wind regime responses to climate variability and change in the inner-south-coast of British Columbia Canada. *Atmosphere-Ocean*, **47**(1):41–61.

Gilleland E, TCM Lee, J Halley Gotway, RG Bullock, and BG Brown, 2008. Computationally efficient spatial forecast verification using Baddeley's  $\Delta$  image metric. *Mon. Wea. Rev.* **136**(5):1747–1757.

Gilleland E and TL Fowler, 2006. Network design for verification of ceiling and visibility forecasts. *Environmetrics*, **17**(6):575–589.

Stephenson A and E Gilleland, 2005. Software for the Analysis of Extreme Events: The Current State and Future Directions. *Extremes*, **8**:87–109.

Gilleland E and D Nychka, 2005. Statistical Models for Monitoring and Regulating Ground-level Ozone. *Environmetrics*, **16**: 535–546.

### Some other selected publications

Gilleland E, 2008. Confidence intervals for forecast verification. Submitted as an NCAR Technical Note. Available at:  
<http://www.ral.ucar.edu/staff/ericg/Gilleland2008.pdf>

Gilleland E, D Nychka, and U Schneider, 2006. Spatial models for the distribution of extremes. In *Hierarchical modelling for the Environmental Sciences: statistical methods and applications*, Edts. JS Clark and A Gelfand. Oxford University Press, New York pp.170–183. ISBN 0-19-8569671.

Gilleland E and RW Katz. Analyzing seasonal to interannual extreme weather and climate variability with the extremes toolkit (extRemes). *18th Conference on Climate Variability and Change, 86th American Meteorological Society (AMS) Annual Meeting*, 29 January - 2 February, 2006, Atlanta, Georgia. **P2.15**. Available at:  
<http://www.isse.ucar.edu/extremevalues/Gilleland2006.pdf>

Gilleland E and RW Katz, 2005. Tutorial for The Extremes Toolkit: Weather and Climate Applications of Extreme Value Statistics. Available at:  
<http://www.isse.ucar.edu/extremevalues/evtk.html>

### Synergistic Activities

Lead organizer of the Spatial Forecast Verification Methods Inter-Comparison Project (ICP, <http://www.ral.ucar.edu/projects/icp/>).

Organizing Chair for the 4th Annual UCAR/NCAR Early Career Scientists Assembly (ECSA) Junior Faculty Forum on Future Scientific Directions , 1-3 August 2006, Boulder, CO.

Eric Gilleland, Rick Katz and Greg Young, (2004) **extRemes**: The Extremes Toolkit: Weather and Climate Applications of Extreme Value Statistics (<http://www.isse.ucar.edu/extremevalues/evtk.html>)

Two short courses on Extreme Value Analysis.

Organizer of two reading groups: One on extreme value statistics (<http://www.ral.ucar.edu/staff/ericg/extremereading.html>) and one on forecast verification (<http://www.ral.ucar.edu/staff/ericg/vxreading.html>).