Multi-Season Forecasts of North Atlantic Hurricane Activity: 2004–2009

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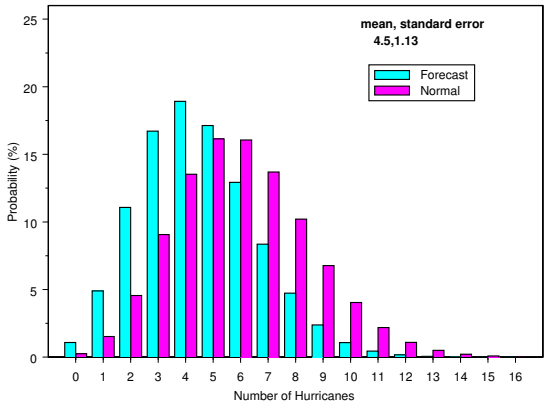
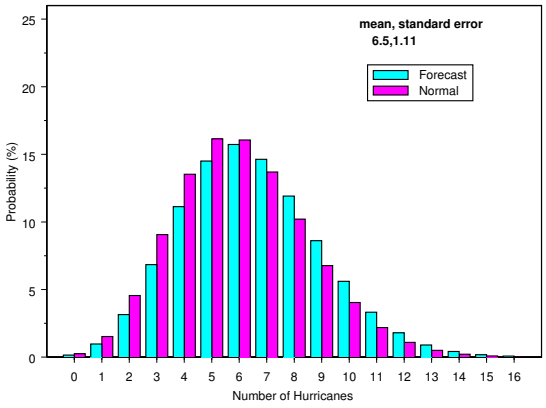
Singular spectrum analysis (SSA) applied to annual North Atlantic hurricane counts produces a set of filtered time records that capture the important temporal variations in hurricane activity. Details of the analysis are given in Elsner et al. (1999). Multivariate Poisson regression of annual counts on the filtered records provides a forecast probability distribution for the next season. Reapplying the procedure on the observed record plus the forecast value provides a way to forecast the next season and so on. Here we make forecasts for six consecutive seasons beginning with the 2004 season.

Number of Hurricanes

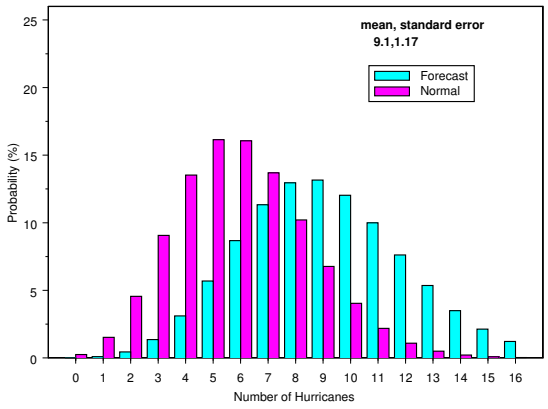
2004



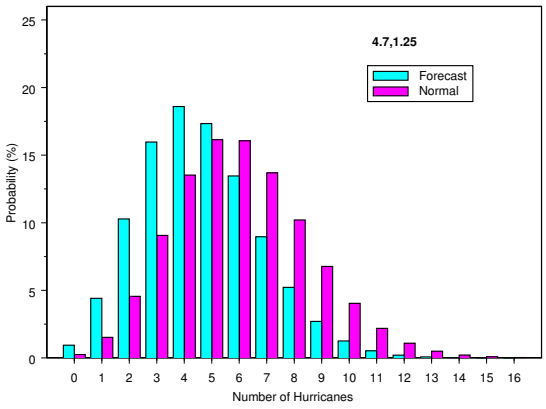
2005



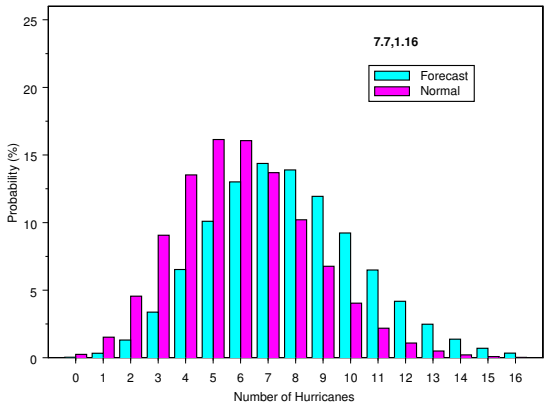
2006



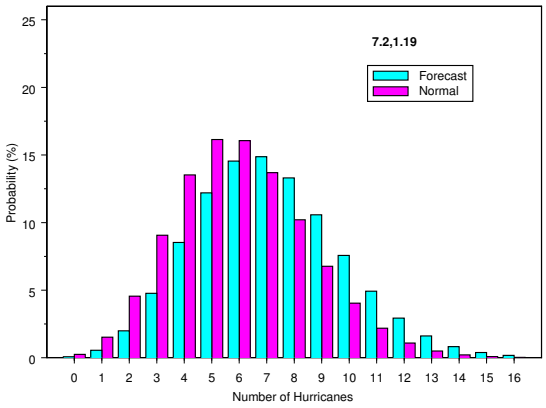
2007



2008



2009



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Reference

- Elsner, J. B., A. B. Kara, and M. A. Owens, 1999: Fluctuations in North Atlantic hurricanes. *J. Climate*, **12**, 427–437.