

Introduction⇒

Anticipating Florida Hurricanes

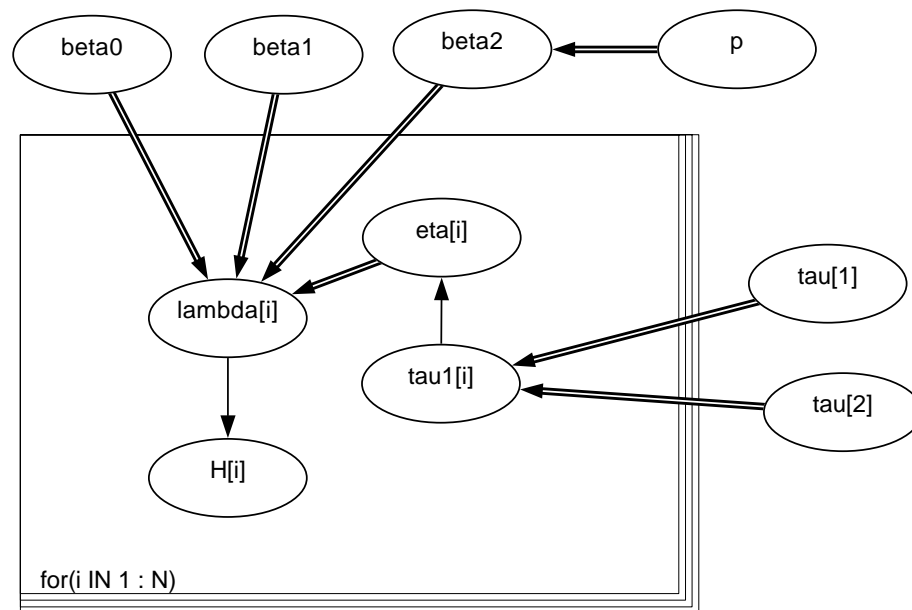
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This past season of unprecedented Florida hurricane activity was not entirely a consequence of bad luck. A notable pre-season weakening of the sea-level pressure gradient over the eastern North Atlantic foreshadowed the onslaught of storms consistent with our research showing a negative relationship between springtime values of the North Atlantic oscillation (NAO) and hurricane activity over the U.S. coast (Elsner et al.~2001; Jagger et al.~2001), especially along the southeast that includes Florida (Elsner 2003).

Here we design a hierarchical Bayesian model for annual Florida hurricane counts that includes a pre-season May-June value for the NAO as a covariate and that assigns greater uncertainty to the counts prior to 1900. Using an average index value for May-June of 2004, the model hindcasts an active season for Florida. The model showing a 46% chance of at least one Florida hurricane for 2004 is in bold contrast to the most recent 53-year historical probability of 30%.

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Doodle⇒ *Graphical model for FL hurricane activity*



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Code⇒

To run the model first download the free WinBUGS software from

<http://www.mrc-bsu.cam.ac.uk/bugs/welcome.shtml>

