Gustav 2008

Mi Zhang, Peng Liu, Qiannan Shen, Yujia Wang

According to the NOAA report for Hurricane Gustav, we found five buoys that are closely related to Gustav as listed under the Data Section. We are going to compare NOAA Buoy data with Hurricaneexposure data to see how winds, precipitation, pressures and other factors could affect Gustav before and after landing. Moreover, we are going to focus on how the distance of hurricane tracks can have impacts on the environment, such as some natural disasters caused by Gustav.

Once we have done exploring hurricane data, we will switch to atmospheric rivers and do the same thing for it.

Data:

* Hurricaneexposure: rain, storm\_winds, hurr\_tracks, closest\_dist, etc
* NOAA Buoys data: 42003, 42007, 42039, 42040, and 42059
* May try to find some damage related data(economics, infrastructures, agriculture, ect)

Visualizations:

* EDA: grouping by different types of buoys measurements, ggplots, variograms
* map\_counties
* map\_rain\_exposure
* map\_distance\_exposure
* map\_wind\_exposure
* map\_event\_exposure

Deliverables:

* PDF report: find correlations between Gustav and environmental factors
* User interface: slides or shiny application

Useful links:

<https://www.ndbc.noaa.gov/hurricanes/2008/gustav/>

<https://github.com/geanders/hurricaneexposure>