

Tropical Cyclone Report

Tropical Cyclones

A tropical cyclone is a large storm that rotates around a low pressure center. There is system for classifying tropical cyclones based on their wind speeds, which includes the tropical storm designation and the hurricane designation, reserved for the largest storms.

There is great scientific and public interest in understanding tropical cyclones, given that they are difficult to predict far in advance, and they have the capability to produce significant damage. See for example the recent videos of homes in Buxton, NC collapsing into the ocean, as a result of waves produced by post-tropical cyclone Imelda.

The hurdat2 data is an important dataset for studying tropical cyclones. It records the status of tropical cyclones at 6-hour intervals. Here is a plot of the hurdat2 storms for the 2024 Atlantic hurricane season:

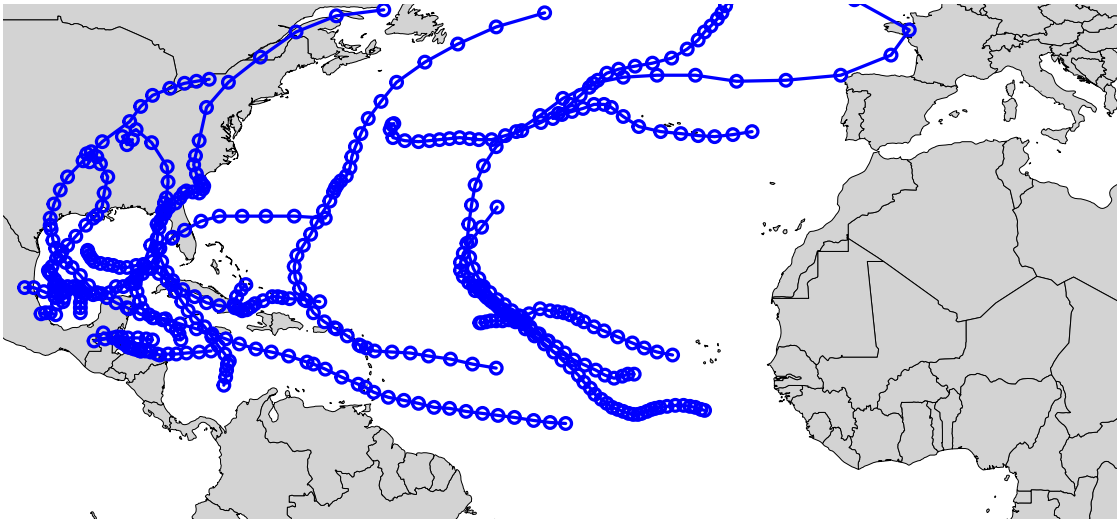


Figure 1: 2024 Hurricane Season