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Fig. 1 Possible factors responsible for determining TC size and its changes.

- This review summarizes the main findings of the observational and numerical studies on the climatology and possible change mechanisms on the outer-core wind structure of a tropical cyclone (TC), which has been generally referred to as size, a term also to be used in this review, from the earlier works before the satellite era to the latest ones.
- Based on the various studies, it is apparent that within a specific ocean basin, TC size has both temporal (seasonal, interannual and perhaps even interdecadal) as well as spatial (latitude and longitude) variations, which are related to the different synoptic-scale flow patterns in which the TCs are embedded and the different magnitudes of the Coriolis force.
- Both observational analyses and numerical simulations show that various factors are likely responsible for determining TC size and its changes. These include import of angular momentum in the lower troposphere, upper-level forcing, environmental humidity, initial vortex structure (size and outer winds), sea surface temperature, planetary vorticity, and vortex intensification.