

Towards high-resolution global projection of tropical cyclones in the GISS model

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We have performed a comprehensive analysis of tropical cyclones in the GISS model at 1x1 degree.

- This is the highest resolution at which the GISS model has ever been run
- The model has a plausible simulation of global TCs, comparable to other models at similar resolution
- We have analyzed simulations with historical climatological SST, +2K, 2xCO₂, and combined forcings
- The effect on global TC number of CO₂ and SST forcings add approximately linearly, and oppose each other, leading to a weak response to combined forcing
- Working towards 0.5x0.5 degree resolution for future TC/climate projection

