

## **A comparison of extratropical cyclones in CMIP5 models**

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Extratropical cyclones are identified and compared in the CMIP5 models. Climatologies of cyclones are constructed from the new high frequency multi-model dataset and intercompared between models, experiments and ensembles. Models are validated against reanalyses to assess their reliability. The climate change scenarios are also explored to examine possible changes in cyclone distribution and properties in the future. In this study, diagnostics focusing on the cyclone properties such as track, genesis and lysis densities, and storm intensity distributions of vorticity, wind and precipitation, will be related to large scale aspects of the general circulation and how this may change in the future.