



## **How do greenhouse gases and sulphate aerosols influence cyclone characteristics over the North Atlantic?**

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Changes in North Atlantic cyclone statistics are analysed by applying a cyclone tracking algorithm (Hodges, 1999) to the results of transient climate simulations. In order to separate the climatic impact of particular forcings calculations with and without aerosol effects have been performed simulating the period 1860 to 2100. The datasets are investigated in terms of changes in cyclone tracks, lifetimes and intensities as well as frequencies of cyclone occurrence, cyclogenesis and cyclolysis. The effects of changes in the atmospheric concentration of greenhouse gases and changes in the concentration of sulphate aerosols will be presented.

References Hodges, K. I. (1999). Adaptive constraints for feature tracking. *Mon. Wea. Rev.*, 127, 1362-1373.