



## **Changes in the characteristics of the stratospheric vortex during stratospheric sudden warmings**

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The stratospheric polar vortex is detected using a method based on regions of interest. Data from ERA-Interim reanalysis and WACCM are used to follow the vortex from the lowermost stratosphere to the mesosphere. The changes associated to stratospheric sudden warmings are studied from the point of view of the vortex: what happens inside, in the border and in the outside. Variables such as temperature, horizontal wind, ozone or the Brewer-Dobson Circulation are analyzed. The results suggest a great improvement respect to previous methods to compute and track the vortex.