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**Studying the tropical tropopause layer through GPS radio occultation**

GPS radio occultation technique represents an innovative tool for measuring the temperature of the upper troposphere lower stratosphere. In respect to other measurement it has the advantage of having both high vertical resolution and a global coverage. Using CHAMP data the global structure of the tropical tropopause layer has been analysed. This has been done using both the first and the second moment of the monthly distribution of refractivity over a 5x5 degree grid. The variability of the refractivity profile, exhibits an isolated sharp maximum around the tropopause level. This can be attributed to the transient heating due to deep convection latent heat release. Using the position of this maximum we have monitored the spatial and temporal structure of the tropopause height for 2004 obtaining results which Appear to be in a good agreement with previous studies. The launch of two satellite missions during 2006 (GRAS on board of MetOp and COSMIC) will boost the number of observation available per day, consequently increasing the time resolution of the results.