



## **GRAVITY WAVE MOMENTUM FLUX ESTIMATION FROM CRISTA SATELLITE DATA**

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Temperature altitude profiles measured by the CRISTA satellite were analyzed for gravity waves (GWs). Amplitudes, vertical and horizontal wavelengths of GWs are retrieved by applying a combination of maximum entropy method (MEM) and harmonic analysis (HA) to the temperature height profiles and subsequently comparing the so retrieved GW phases of adjacent altitude profiles. From these results global maps of the absolute value of the vertical flux of horizontal momentum have been estimated. Significant differences between distributions of the temperature variance and distributions of the momentum flux exist. For example, global maps of the momentum flux show a pronounced northward shift of the equatorial maximum whereas temperature variance maps of the tropics/subtropics are nearly symmetric with respect to the equator. This indicates the importance of the influence of horizontal and vertical wavelength distribution on global structures of the momentum flux.