

## Unresolved Problems: The Generation Mechanism of the superrotation component in the Venusian upper atmosphere

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The spacecraft and the ground based observations have revealed that the structure of the Venusian upper atmosphere is not symmetric about the Sun-Venus line. This implies the existence of superrotation component in the general circulation of the Venusian upper atmosphere. Two mechanisms are considered for generation of this flow component, (1) remnant of superrotation in the Venusian lower atmosphere, (2) in situ forcing due to the saturation of upward propagating gravity waves. It is lack of wind measurements in the Venusian middle and upper atmosphere that prevents the identification of the generation mechanism of the flow component. The observations of the longitudinal variation of thermospheric wind and wind profiles above the cloud layers up to the lower thermosphere are essential.