



## **Vortex-like structure in the cusp-magnetosheath interface**

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The recent experimental studies have proven undoubtedly the presence of the magnetopause indentation in the cusp region. The deformation of the magnetopause surface acts as an obstacle diverting and decelerating the magnetosheath flow. Since this region is crucial for our understanding of the solar wind/magnetosphere coupling, its investigation is desirable but, unfortunately, the high-altitude cusp is visited by the spacecraft rather rarely.

Our two-point observations unveiled a presence of the vortex-like structure filled by slow heated plasma in the outer cusp during periods of positive IMF  $B_z$ . We have found the rotation of the magnetic field and the decrease of its magnitude connected with the presence of a hot plasma population inside the vortex. The diameter of the observed vortex derived from measurements of two spacecraft is estimated and the velocity of the vortex motion is determined. The observed phenomenon is probably a regular feature of the high-altitude cusp, however, this relatively small structure cannot be observed too often.