



## **VEX Observations of Heliospheric Structures Influencing Planetary Ion Escape**

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Recent studies of atmospheric ion escape from Venus using Venus Express (VEX) observations from ASPERA and MAG experiments provide new evidence for the influence of solar wind structure. In particular, the roles of solar wind stream interaction regions and small interplanetary field (IMF) cone angles in modifying escape rates have been demonstrated. In this study we examine the overall interplanetary magnetic field and solar wind parameters observed over the course of the VEX mission so far. In particular, we determine the statistics of small IMF cone angle occurrences, solar wind pressure enhancements, and large IMF rotations such as those associated with heliospheric current sheet crossings. These results provide a baseline for understanding the external influences on atmospheric escape rates and their expected evolution as solar activity increases.