



VEX Insight on the Boundary Separating Solar and Venusian Plasmas

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We present data obtained ASPERA-4 and MAG experiments onboard the VENUS-EXPRESS spacecraft during its first year of operation around Venus. The main plasma regimes around the planet are discussed from ions, electrons and magnetic field measurements with a particular emphasis of the Magnetic Pile-up Region and Boundary. We show that the inner region Venus-ward of the magnetosheath is characterized by a sharp decrease of solar wind ions and the appearance of high fluxes of heavy planetary ions coinciding with the MBP. We report on the nature of this boundary, found quite frequently to have the characteristics of a rotational discontinuity. The asymmetry of the boundary between inbound and outbound passes, depending on the IMF orientation, is discussed in the framework of the interaction of the solar wind and IMF with the ionosphere of the planet.