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Plasma Moments in the Environment of Mars and Venus

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The Aspera-3 and Aspera-4 instruments on board the Mars and Venus Express mission allow for the first time to map density, velocity and temperature of electrons and light ions for all solar zenith angles and altitudes above the planetary ionopause. Below the ionopause we can only determine partial electron densities because cold electrons are below the instruments energy threshold. These maps can be used to define the 'standard magnetosphere' of both planets and the plasma background in which heavy ion escape can be modelled. We discuss the main differences between the plasma conditions observed at Mars and Venus at their dependence on solar wind and solar EUV parameters.