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A statistical analysis of the hydrogen ENA observations at Mars and Venus

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The ASPERA-3/4 instruments on the two ESA spacecraft Mars Express and Venus Express have provided the first measurements ever of energetic neutral atoms (ENAs) from Mars and Venus. These ENAs are the result of the interaction between the solar wind and the planetary atmosphere.

Here, we present and discuss the hydrogen ENA observations made on the nightside of the two planets. We have reached the stage at which we can compare the observed ENA outflow to model results in a statistical way. These comparisons are a vital test for the models and for our general understanding of the interaction of the solar wind with non-magnetized planets.