



## **Long term study of solar wind proton dynamics near 67P/Churyumov-Gerasimenko**

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The Rosetta mission has been escorting comet 67P/Churyumov-Gerasimenko since early August 2014, spanning heliocentric distances from 3.65AU to 1.24AU (the comet perihelion, reached on August 2015). Data presented here were collected during this phase: as the heliocentric distance decreases with time, the nucleus activity increases, and the interaction between the solar wind and the atmosphere of 67P evolves and becomes more complex. At low activity, the partially ionized coma is permeated by the solar wind. It adds mass to this plasma flow, which in turn is slowed down and deflected. As coma densities get gradually higher, this mass loading phenomenon intensifies, to the point where the solar wind is not observed anymore in the inner region of the coma. We present a long term study of the solar wind protons, focusing on their deflection and plasma parameters.