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## Ion energy and momentum flux near the cometopause of Comet 67P/Churyumov-Gerasimenko

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Defined as the region where the plasma interaction region of a comet goes from being solar wind-dominated to cometary ion-dominated, the cometopause is a region of comingling plasmas and complex dynamics. The Rosetta mission orbited comet 67P/Churyumov-Gerasimenko for roughly two years. During this time, the cometopause was observed by the Ion Composition Analyzer (ICA), part of the Rosetta Plasma Consortium (RPC), before and after the spacecraft was in the solar wind ion cavity, defined as the region where no solar wind ions were measured. Data from ICA shows that solar wind and cometary ions have similar momentum and energy flux moments during this transitional period, indicating mass loading and deflection of the solar wind. We examine higher order moments and distribution functions for the solar wind and cometary species between December 2015 and March 2016. The behavior of the solar wind protons indicates that in many cases these protons are deflected in a sunward direction, while the cometary ions continue to move predominately antisunward. By studying the distribution functions of the protons during these time periods, it is possible to see a non-Maxwellian energy distribution. This can inform on the nature of the cometopause boundary and the energy transfer mechanisms at play in this region.