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Discussions

Interactive comment on "Dynamics Geomagnetic Storm on 7–10 September 2015 as Observed by TWINS and Simulated by CIMI" *by* Joseph D. Perez et al.

Anonymous Referee #1

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The authors answered my comments properly except for one thing on the equatorial pressure (Line 311 in the first version of the manuscript). The authors stated that p_{eq} is pressure at the equator as a function of position and pitch angle, and that it is the standard definition of pressure. If it is the standard definition of pressure, please cite relevant reference. The reason why I am asking is that readers may be eager to know how the authors obtained the terms,$P_{\perp}$ and $P_{||}$. Here, I assume that $P_{\perp}$ and $P_{||}$are the pressure tensor components in the perpendicular and parallel components, respectively. Lui et al. (1987, 10.1029/JA092iA07p07459) show the equations to calculate $P_{\perp}$ and $P_{||}$ as a function of velocity v and the velocity distribution function f (Eqs. 2 and 3 in Lui et al., 1987). The velocity distribution function f is associated with the differential

flux that is directly measurable. What is the relationship between p_{eq} and the measured value (probably differential flux derived from the ENA observation)?

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