Quantitive evaluation of the forces that drives the ion outflow using the EISCAT data

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The field-aligned ion outflow from the polar ionosphere to the magnetosphere has been observed with incoherent scatter radars and satellites over the last two decades. The field-aligned ion motion in the topside ionosphere is influenced by several forces such as ion pressure gradient, ambipolar electric field, collisions between ions and neutral particles, collisions between ions and electrons, gravity, and centrifugal force.

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