



Auroral arcs and ion outflow

Romain Maggiolo

BIRA/IASB, Brussels, Belgium (romain.maggiolo@aeronomie.be)

This presentation provides an overview of the chapter “Auroral Arcs and Ion Outflow” from the AGU book “Auroral Dynamics and Space Weather” (eds Y. Zhang and L. J. Paxton). This topic covers a wide range of domains, from auroral acceleration processes, auroral arc morphology and dynamics to global magnetosphere-ionosphere coupling and atmospheric erosion. This presentation mainly focuses on the observational properties of auroral ion outflow. Recent observations about their large-scale spatial distribution and link with auroral forms will be presented. Auroral ion outflow statistical dependence on solar and geomagnetic activity and its modulation by auroral dynamics at the timescale of substorms will also be discussed.