2013 Workshop: To the Topside

Long title
To the Topside: exploring the space-atmosphere interaction region
Conveners
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Description

In the tenuous uppermost reaches of an atmosphere, often referred to as a corona or exosphere, important interactions take place in which mass, momentum and energy are exchanged with the interplanetary environment. In this session we will focus on observations and modeling of neutrals and ions (primarily H, H+, He, and O) in the terrestrial exosphere and topside ionosphere. Session contributions exploring topside connections to atmospheric regions below and responses to external forcing (e.g., the recent deep solar minimum) are encouraged.

Justification

The ‘CEDAR New Dimension’ document highlights the upper atmosphere as a link between the atmosphere below and the interplanetary environment. Nowhere is this link stronger than in the exosphere/topside ionosphere where the terrestrial atmosphere literally merges with interplanetary space. As we explore the complex processes that govern the coupling, energetics, and dynamics of the upper atmosphere as a whole, our understanding of this important interface, through observations of its mean state and its response to external forcing, will provide important constraints as we seek to develop a complete picture of this complicated space-atmosphere system.

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