

SEMINAR

Parameterization of Blue Jets and lightnings in WACCM: Frequency and chemical impact of atmospheric electricity phenomena

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We will present the results of our ongoing work about six different parameterization for lightning and several for Blue Jets in WACCM. Blue Jets are 20 km tall stratospheric electrical discharges taking place in the stratosphere from the bottom of the cloud top as a consequence of lightning. It is known that lightning are an important source of tropospheric NO_x. In addition, Blue Jets can generate stratospheric NO_x, N₂O, O and other chemical species. In this seminar, we will comment on the global frequency and possible global chemical influence of both Blue Jets and lightning in the atmosphere of the Earth. Finally, we will compare our calculations with available lightning flash frequency observed by satellites and with some of the latest NO_x measurements.

Monday, October 23, 2017, 3:30 p.m.

Refreshments 3:15 p.m.

NCAR Foothills Laboratory

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FL2-1022, Large Auditorium

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