

ATS/CIRA Colloquium

Peter Hitchcock

Visiting ATS from the National Center for Atmospheric Research

**Downward influence from the Stratosphere
in the extratropics**

Hosted by Thomas Birner

Friday, Nov. 18, 2016

**ATS room 101; Discussion will begin at 11:15 a.m.
Refreshments will be served at 10:45 a.m. in the weather lab**

Evidence from models and observations that the stratosphere imparts a significant downward influence on near-surface weather and climate has grown steadily since landmark papers in the early 2000s. It is now clear that the large-scale circulation in the stratosphere can be usefully exploited by seasonal forecasts, and that changes in this circulation are highly relevant both for understanding regional climate change in the past and projecting such changes into the coming century. Understanding the mechanisms behind this influence has proven to be quite challenging, but a number of recent studies have made significant progress in clarifying the relevant processes. This talk will summarize some of the established results in this area, argue for some points where real progress has recently been achieved, and speculate on some ongoing challenges and open questions.

Link to colloquium videos and announcement page: <http://www.atmos.colostate.edu/dept/colloquia.php>