

**ATS/CIRA Colloquium**

**David Romps**

Visiting CSU ATS from UC Berkeley

**Making Sense of Clouds with the Transilient Matrix**

Hosted by Sue van den Heever

**Thursday, May 3, 2012**

**ATS room 101; Discussion will begin at 3:30pm  
Refreshments will be served at 3:00pm in the coffee lounge**

Clouds transport water, trace gases, and momentum through the atmosphere in a way that is not at all "diffusive". Instead, clouds transport these things in a "transilient" way, jumping across whole layers of the atmosphere. As a result, the convective tendencies of water, dust, trace gases, momentum, etc. are most accurately diagnosed -- and modeled -- using the so-called "transilient matrix" as a framework. New techniques allow us to diagnose these matrices from large-eddy simulations of clouds, and the resulting matrices are yielding new insights into how convection works.

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