DATE:  Tuesday, 1 December 2015
TIME:  11 a.m.
LOCATION:  NCAR, 1850 Table Mesa Drive
           Mesa Lab, Main Seminar Room
TITLE:  Land-Atmosphere Feedbacks: A Local Look at How Droughts Deepen
SPEAKER:  Ahmed Tawfik, CGD/TSS

ABSTRACT:

Although it is well-known that persistent synoptic patterns provide the necessary forcing to produce drought conditions, the time scales of persistence and local land-atmosphere feedbacks still remain unclear. This talk explores the local land surface response to this forcing with particular emphasis on the physical mechanism responsible for how droughts evolve. A possible transition from a regime that restrains synoptic conditions to a rapidly accelerating regime that worsens drought conditions will be discussed. Instigated by sufficiently dry soils, the regime shift deepens the drought by promoting greater dry air entrainment until synoptic patterns change. Observational evidence for this shift in land-atmosphere feedback regimes is presented and the ability of the CESM to capture the cascade of processes is explored.

Live webcast:  http://www.fin.ucar.edu/it/mms/ml-live.htm
Live chat:  http://www.fin.ucar.edu/it/mms/ml-live-chat1.htm
For more information, contact Gaylynn Potemkin, email potemkin@ucar.edu, phone: 303.497.1618