



Prof. Zhaohua Wu

Earth, Ocean, & Atmos. Sci.
Florida State University

Conditional Instability of the Second Kind: A Dead End or An Old and New Path

Abstract

Conditional instability of the second kind (CISK) was first proposed in 1960s to explain the interaction between tropical convective heating and thermally forced circulation or waves. A prominent formulation was the so called wave-CISK in which waves and convergence of moisture feedback to each other. Unfortunately, with such a formulation, it appears that the high instability is always associated with the smallest scale phenomena, which was called "CISK catastrophe". For this particular reason, some scientists has vindicated that CISK or wave-CISK is not suitable for explaining tropical phenomena.

In this talk, I will explain why such type of vindication is not we justified since the consistency between mathematics and physics has already been dropped in the classical formulation of the wave-CISK problem. We will discuss our solutions to the problem and show CISK is indeed fundamental in the tropics.

Time:	Thursday, Oct. 17 @ 3:30 PM
Location:	LOV 353