Séminaire mardi le 20 janvier 2015 11:00h / Seminar Tuesday January 20th 2015 11:00h

Sujet/Subject : Predictability of severe weather at the mesoscales

Langue/language : Anglais / English

Conférencier/Lecturer: Fuqing Zhang (Pennsylvania State University)

Résumé/Abstract :

Despite rapid advances in numerical weather prediction (NWP) models and ever increasing computational capability, our ability to accurately predict various severe weather phenomena in the short range and at the mesoscales remains limited. This talk will present an overview of recent progress in our understanding of the mesoscale predictability of various severe weather phenomena including summertime mesoscale convective systems, tropical cyclones and wintertime snowstorms using both real-data studies and idealized simulations. Both practical and intrinsic predictability will be discussed. Also presented will be a multi scale error growth conceptual model through which small-scale small-amplitude initial condition error may grow upscale through moist convection which may ultimately limit predictability at the mesoscales and beyond.