

*A proposal to*  
The Lamont Climate Center 2011

## **Mini-conference: Severe convection and climate**

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### **Abstract**

Severe convection is associated with windgusts, heavy rainfall, hail, thunderstorms, lightning and tornadoes. These phenomena have large societal impacts, especially in the U.S. which has the highest frequency of severe convection. The environmental factors associated with deep moist convection — moisture, low static stability, and rising motion — are sufficiently well-understood to provide a basis for short range prediction. However, there is substantially less understanding of the connection between severe convection frequency and large-scale climate phenomena such as ENSO and climate change. While emerging research supports the existence of such connections, significant gaps remain, in part related to the distinct communities studying convective storms and large-scale climate variability, as well to the difficulty of relating highly disparate time and space scales. To help bridge these gaps and accelerate learning, we are requesting funding for a two-day mini-conference to bring together experts on severe storms, large-scale climate variability and statistical analysis.