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## **Geophysical Turbulence Program Seminar**

National Center for Atmospheric Research

# **Effective Dissipation and Turbulence in Spectrally Truncated Euler Flows**

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### **Abstract:**

A new transient regime in the relaxation towards absolute equilibrium of the conservative and time-reversible 3-D Euler equation with high-wavenumber spectral truncation is characterized. Large-scale dissipative effects, caused by the thermalized modes that spontaneously appear between a transition wavenumber and the maximum wavenumber, are calculated using fluctuation dissipation relations. The large-scale dynamics is found to be similar to that of high-Reynolds number Navier-Stokes equations and thus to obey (at least approximately) Kolmogorov scaling.

### **When:**

30 January 2007

Tuesday, 2:30 pm (Refreshments at 2:15pm)

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### **Where:**

Foothills Laboratory Building 0

Room 2512