

UCLA Department of Physics & Astronomy

COLLOQUIUM

Thursday, January 9 at 4 p.m.
1-434 PAB

Climate DIYnamics

Jonathan Aurnou
(UCLA)



Large-scale atmospheric and oceanic fluid dynamics are dominated by the effects of planetary rotation and, thus, differ fundamentally from the local-scale fluid motions that we are well acquainted with. In this talk, I will first go over the fundamental physics of rapidly-rotating flows. Then we will carry out a set of simple, DIY desktop rotating experiments to test our predicted flow behaviors. By modifying this set up, it is possible to generate a desktop atmospheric jet stream. The instability of this jet takes the form of mid-latitude winter-time storms with analog atmospheric rivers tending to wrap around their peripheries. Thus, assuming the desktop experimental powers-that-be are beneficent, we will explain and demonstrate the essential phenomena of winter-time climate in LA.

Refreshments at 3:30 p.m. on the PAB Patio. Undergraduates Welcome!