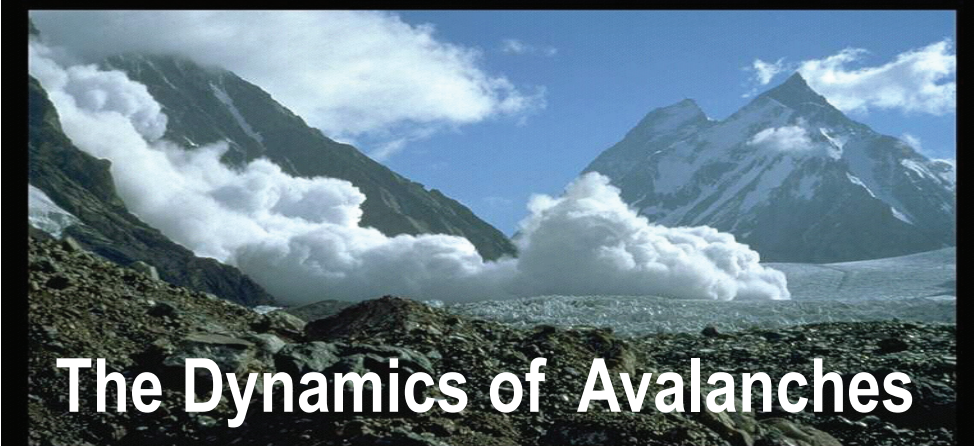




FRIENDS OF THE KAVLI INSTITUTE FOR THEORETICAL PHYSICS

Chalk Talk



The Dynamics of Avalanches

More than a million avalanches happen throughout the world every year. Most fall harmlessly, but the largest can destroy whole towns and kill thousands. In Western Europe, such large disasters are rare but, even so, in any given year, dozens of skiers, snowboarders and climbers may be killed, and in a bad year it can be hundreds.

An avalanche, however, is a physical phenomenon, and as such it should manifest certain universal characteristics. For instance, avalanches of carbon dioxide ice have been seen on the surface of Mars.

This talk will describe one mathematician's efforts to understand snow avalanches. The work ranges from investigating avalanche disasters in the Japanese mountains to dropping half a million ping-pong balls down a ski jump.

Wednesday, November 20, 2013

Kohn Hall, UCSB

5:30 PM Courtyard Reception

6:15-7 PM Presentation

7-7:15 PM Questions & Discussion

Attendance only by Reservation

RSVP by November 1st

On-Line: www.kitp.ucsb.edu/chalk-talk-rsvp

Phone: 893-6363 or events@kitp.ucsb.edu

LOT 10 PARKING

As you enter campus from Hwy 217, turn right onto Mesa Rd, merge into left lane, at the stop light turn left into Parking Structure 10. PARK on the second floor or above, BUY a \$4 permit from the dispenser (near the elevator and stairs), DISPLAY PERMIT on dashboard. The KITP is right next door.



Jim McElwaine

**Professor,
University of Durham**

JIM McELWAINE's research is in geophysical fluid dynamics, with a focus on granular and multi-component flows. At the University of Cambridge, he received a PhD in Applied Mathematics studying quantum mechanics and its interpretation. After positions in Japan, Europe, and the United States, he became Professor of Geohazards in the Department of Earth Sciences at the University of Durham. His work ranges widely over many geophysical flows as well as fundamental problems in granular and fluid mechanics. He is also a senior scientist at the Planetary Science Institute in Tucson, where he researches surface processes on other planets and asteroids.

A keen climber and skier, McElwaine's love affair with avalanches began after he was hit and buried by a large one on an unclimbed mountain in the Himalayas. Nowadays, he is more careful -- being buried up to his waist is more typical.