

Ice fishing for neutrinos

a talk by **Professor Francis Halzen**

from the University of Wisconsin-Madison

Scientists are melting holes in the bottom of the world!

Eighty holes over two Km deep will be melted in the Antarctic icecap over the next five years to be used as astronomical observatories. Into each hole is lowered a string Knotted with football-sized light detectors which are sensitive to the shimmering blue light emitted in the surrounding clear ice when ghostly particles called neutrinos pass through the Earth. These neutrinos are cosmic messengers from the most violent processes in the universe, for example giant black holes gobbling up stars in the heart of quasars, and gamma-ray bursts which are the biggest explosions since the Big Bang. Neutrinos will tell us if there are dark matter particles trapped in the heart of the Sun, and perhaps even reveal if there are additional dimensions in space.

Suitable for A-level science students & the general public

Friday 23 September 2005, 6pm-7pm Martin Wood Lecture Theatre Clarendon Laboratory, Parks Road (opposite Keble College)







Booking recommended for school groups. Please contact: Dr Zareen Ahmed Tel: 01865 282447 Email: zareen.ahmed@mps.ox.ac.uk

