

The 2012 CAP lecture
(Canadian Association of Physicists)

will be given by

Darren Grant

University of Alberta

on

Thursday, March 29, 2012

12:30 pm to 2:00 pm

Hennings 201

“Ghosts in the ice - Searching for the Universe's highest energy particles at the South Pole”

Abstract:

In one of the planet's most extreme environments, South Pole Station Antarctica, scientists have instrumented more than a cubic kilometer of ice to construct the world's largest neutrino detector to date: the IceCube Neutrino Observatory. Neutrinos, which interact very rarely in nature, represent an ideal messenger with their ability to travel from their point of production to detection almost entirely unimpeded. Given its enormous size, IceCube is designed to detect the highest energy neutrinos predicted to be produced in the most violent astrophysical processes (including Gamma Ray Bursts, Black Hole collapse and Active Galactic Nuclei) I will discuss the feat of designing and constructing the IceCube detector at the South Pole and the first results of searches for high energy neutrinos with this new window to the Universe.



Light refreshments (juice/pop/donuts) will be served!