Particle Physics Masterclass: From Quarks to the Cosmos!!

Experience authentic astrophysics with the IceCube South Pole Neutrino Observatory and particle physics with the Compact Muon Solenoid (CMS) at CERN

> Saturday, 1 April 2017; 8:45 am – 4:00 pm Punahou School, Mamiya Science Center, Room 104 and Cornuelle Hall **RSVP by 24 March to XXXXXXXX**

• For high school students and teachers

• Learn about IceCube, a cubic-kilometer detector at the South Pole, and how neutrinos help us explore the extreme Universe • Discover the world of quarks and leptons with data from CERN

Morning lectures

Compact Muon

Solenoid

- Lunch with physicists
- Hands-on analyses using data from the IceCube and CMS Collaborations:
 - High Energy Neutrinos from the Cosmos
 - Measurement of W and Z bosons
- Speakers: Jason Kumar, Carsten Rott, Jamie Gainer, and Warren Huelsnitz
- Organized by UH Physics Outreach
- Sponsored by UH Manoa Physics Department
- For more information: whuelsnitz@punahou.edu



