

## **Schedule: Cosmic Neutrino Observations at Ultra High Energy**

16/12 Monday 4 PM, L13, Inaugural lecture:

Introduction to cosmic rays and astroparticle physics, Dave Besson

17/12 Tuesday 10 AM, L13: Cosmic ray interactions with air nuclei , Sukanta Panda

17/12 Tuesday 11:30 AM L13: surface detector arrays, Dave Besson

17/12 Tuesday 3:30 PM, L13: Propagation in atmosphere , Sukanta Panda

17/12 Tuesday 4:30 PM L13: Informal discussion with participants

18/12 Wednesday 10:00 AM L13: photo tubes, scintillation detectors,  
detection of muons, Pravata Mohanty

18/12 Wednesday 11:30 AM, L13: group discussion, future cosmic rays detectors and Indian  
contribution

18/12 Wednesday 3:30 PM L13: Monte Carlo simulations of air showers, extraction  
of particle properties, Pravata Mohanty

19/12 Thursday, 10 AM, L13: Cascade equations, electromagnetic cascades , Pankaj Jain

19/12 Thursday 11:30 AM, L13: Production of radio waves, radio detection , Dave Besson

19/12 Thursday 3:30 PM L13: Cherenkov radiation, Askarian effect, Pankaj Jain

20/12 Friday 10:00 AM L13 : Neutrino generated particle showers in air and  
ice, Dave Besson

20/12 Friday 11:30 AM, L13: Icecube observatory , Dave Besson

20/12 Friday 3:30 PM, L13: Monte Carlo simulation of air showers, Pankaj Jain

21/12 Saturday 10:00 AM L13: Nuclear fragmentation functions, hadron fragmentation  
functions, Pankaj Jain

21/12 Saturday, 3:30 PM, L13: Detection using radio waves; ANITA observatory, Dave Besson

22/12 Sunday, 11 AM, FB 382: Future observatories, Dave Besson

23/12 Monday, 10 AM L13: Hadronic models, Sampling Techniques, Pankaj Jain,

23/12 Monday 3:30 PM L13: Simulation of radio pulse, Pankaj Jain