

#### Introduction

- INO : India Based Neutrino Observatory, first mega
- institutes and universities are involved.
- particle called neutrino.
- The Govt. of India has given its approval for the establishment of INO.

#### Location

Tamil Nadu, Theni District, 100 km from Madurai.

In the site of Bodi West Hills.

2 km long tunnel will be built to access 1 km all-round Rock cover.



- as the **BIGBANG**.
- Help to understand astrophysical objects like SUN, supernova.

### India-based Neutrino Observatory (INO)

Amina Khatun **INO Ph.D. Student at IOP** On the behalf of INO collaboration amina@iopb.res.in 1st February, 2015

# Interaction with particles of earth atmosphere. μΤ **Atmospheric** Neutrinos will be detected Hill

to detector

#### How Neutrinos are detected in INO?

- Neutrinos are detected by some indirect method.
- neutrinos with nucleons.
- see.



### **Graduate Training Programme**

- actively in this project.
- students are working to persue their Ph.D.

#### **Everything Home-Grown**

**Completely in-house Detector R&D with substantial INO-Industry interface.** 



**Construction of INO centre at Madurai: Inter-Institutional Centre** for High Energy Physics (IICHEP)

#### Join us

Know more about INO at http://www.ino.tifr.res.in



# • Neutral particles cannot be seen directly as they are neutral.

• Charged particles ( $\mu$ ) are created from the interaction of

### • These charged particles leave tracks in the detector what we

#### • 200 scientists and engineers from all over INDIA are involved

## •7 Students are already completed their Ph.D. and more than 30