

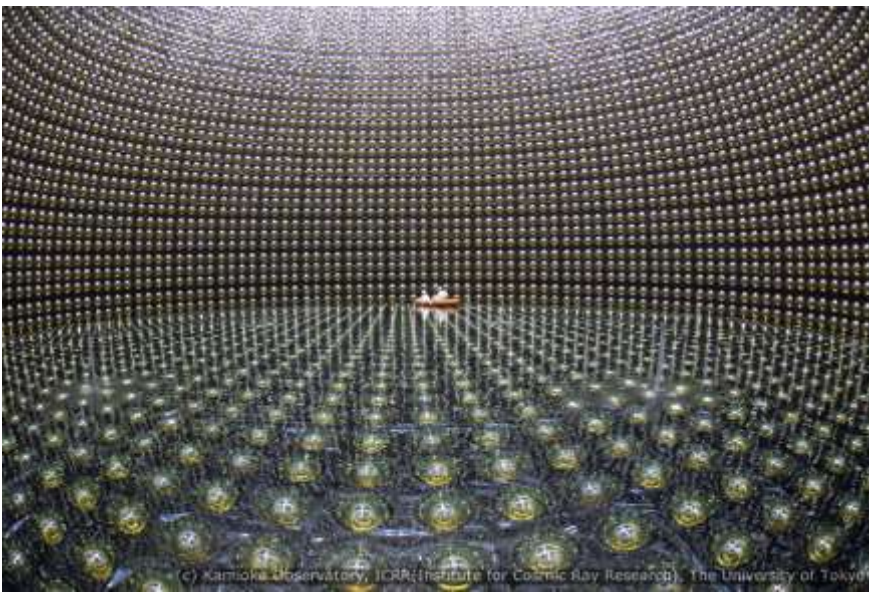
COLLOQUIUM DI FISICA

Giovedì 2 marzo 2017, ore 15.00
aula "A. Rostagni"

Prof. Francesca Di Lodovico

Queen Mary University of London

The Ghost Particle



Neutrinos are weakly interacting neutral particles. Their detection has pushed the barriers of particle detectors and understanding their nature promises exciting breakthroughs in our understanding of the matter-antimatter asymmetry.

The current status of future perspectives for neutrino physics will be addressed in

this colloquium. The first part is focused on the basic characteristics of neutrinos in the Standard Model and how neutrinos are detected. Neutrino masses and oscillations are introduced and a summary of the most important experimental results on neutrino oscillations to date is provided. Then, present and future experimental proposals are discussed, including new precision accelerator and reactor experiments. Finally, different approaches for measuring the neutrino mass and the nature (Majorana or Dirac) of neutrinos are reviewed.