



UNIVERSITÀ
DEGLI STUDI
DI PADOVA



VENICE ASIAGO 2016

DATE: 24TH August 2016

TIME: 14:00 - 15:00

LOCATION: Osservatorio Astronomico di Asiago, via dell'Osservatorio, 8; Asiago, Vicenza

The quest for Higgs' boson

Prof. Donatella Lucchesi
University of Padova

ABSTRACT

Particle physicists study the smallest constituents of the Nature. At the moment the experimental evidence tells that the world is made of subatomic particles called "quarks" and "leptons" that interact via other elementary particles known as "bosons".

Some of these particles are very massive and other have no mass at all.

How this is possible is described by the Higgs mechanism. Higgs' theory predicted the existence of a new particle, which has become known as the "Higgs Boson".

Finding the Higgs boson allow to test the theory and to understand how the particle get mass. The experiments at CERN's Large Hadron Collider have discovered this new particle in July 2012 and now are studying its properties.

FURTHER READINGS

Will be provided by the professor during the lecture.