Doppio decadimento Beta presso LNGS

4 giugno, ore 15.00 , DIFC, on-line seminar

Prof. Fernando Ferroni, responsabile nazionale KM3 Net

"The future of Neutrinoless Double Beta Decay: Searching for Majorana neutrinos

Neutrino appeared on the physics landscape 90 years ago, introduced by a brilliant intuition of Wolfgang Pauli.
Few years after Ettore Majorana , in a seminal paper, introduced the ' Teoria simmetrica dell'elettrone e positrone' that indeed finds its only possible applications to neutrinos !
A lot of time has passed since. Neutrinos appeared to be a family of three, neutrinos acquired mass, oscillations were measure precisely but whether neutrinos obey to the Dirac theory or the Majorana one is still unknown. The only plausible way to tell what they are is to measure the neutrino less double beta decay. One of the most challenging experiment to be performed. In this talk I will recall the status of the art and give an hint on future developments. We are talking to be able to measure half-lives in excess of 10^27 years!"