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Anti-Neutrino Glashow resonance rate testing matter antimatter symmetry

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Extended Icecube (as well as future Tau Airshower array detectors as POEMMA, GRAND) would be soon able to reach a PeVs range of energy where decades of anti-neutrino electron (resonant at Glashow peak) on rest electron may be put in front of muon tracks (born in hadronic interactions) in a weighted statistical way.
The same Tau, Electron and muon ratio weighted with the Glashow signals may play a fine tuned role in understanding the primordial and mixed flavor components.
This would be an opening to new road to test both the flavor ratio in extreme energies as well as the matter versus antimatter presence in UHE (Ultra High Energy) neutrino Universe. Therefore Glashow resonant rate signature might be telling of the main processes in UHE neutrino birth (Pion decays, Radioactive boosted decays, Prompt charmed interactions..) as well as of the very exotic case of a Matter-Antimatter symmetric Universe isolated in far galaxy groups.

Content of the contribution

Both

Author: Prof. FARGION, Daniele (Rome University 1 Sapienza and INFN)

Presenter: Prof. FARGION, Daniele (Rome University 1 Sapienza and INFN)

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