



Contribution ID: 1419

Type: Poster

Paucity of downward UHE neutrino tracks in Icecube versus unexpected huge KM3-230213A event : solving the puzzles?

Recent hundred PeV muon track in downward in downward horizons of ARCA km3 array detector surprised most of the observer. This UHE event, if confirmed, might be the first signature of UHECR secondaries . The photon pion GZK cut off on proton or the photo-nuclear disintegration may be the source of it. However the presence of such a rare and huge event in such a small and new detector volume, its short time observation is in contrast with the longer life ICECUBE data. It is also in contrast with the absence of hundreds PeV upward tau airshower in AUGER or TA, despite the array large, thousands kilometer area and large time integral, capable to discover such UHE hundred PeV tau neutrino induced air-showers.

We notice here that the remarkable asymmetry in ICECUBE upward-downward UHE track events, the paucity of such horizontal downward tracks, both in gold or in bronze alarm event signal in recent years, may offer an explanation of the un-probable KM3 signal. The inclined ARCA array under current, its inclination, a downward hundred PeV, atmospheric charmed muon track, could miss-lead the real event nature. An example of such difficulty in neutrino astronomy is a very recent, probably miss-matched ICECUBE-250309A track with GRB250309B event.

Collaboration(s)

Author: FARGION, Daniele (Physics Department, Rome University 1, Sapienza, ; Osservatorio Astronomico di Capodimonte, INAF, Italy,)

Presenter: FARGION, Daniele (Physics Department, Rome University 1, Sapienza, ; Osservatorio Astronomico di Capodimonte, INAF, Italy,)

Session Classification: PO-2

Track Classification: Gravitational Wave, Multi-Messenger & Synergies