

## **ARRAYS IN SPACE TO DETECT UPWARD TAU AND HORIZONTAL UHECR AIR SHOWERS**

D.Fargion(1),(2).

(1)Physics Department,Rome1,(2)INFN Roma1,Italy

Air Showers are commonly downward chain reactions originated by incoming cosmic rays (nucleons,nuclei,gamma) on upper Earth Atmosphere. Earth itself absorbs all upcoming cosmic rays, filtering mostly upward muons secondaries of noisy Atmospheric Neutrinos. These upward TeVs muons are not usually, source of any upward Air showers.

On the contrary upward Ultra High Energy Tau Neutrinos, above TeVs and near PeVs energies,of relevant astrophysical nature, may lead to upward Tau Airshowers interacting in surface Earth crust. Their showers, mainly of electromagnetic nature, has an unique signature. Their discover may open UHE Tau Neutrino Astrophysics.

Gamma,X,optical and radio Arrays in Space may discover, in the same Auger spirit, such up-coming Airshowers. Economical mini-arrays in commercial Air-Lines planes are considered. Ideal Arrays in International Space Station may observe either upward Tau as well as nearly Horizontal Showers produced also by High Altitude UHECR at extreme GZK energies, flashing to such new Space Shower Array (SSA)