

The AIRWATCH-OWL Experiment, (II) The Science

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The AO collaboration

Abstract

The science topics that AO will enable to be addressed can be fitted into four groups: (1) 'Particle Astronomy' from the spectrum 'ankle' upward, giving individual energies and arrival directions of a much larger number of EECR (Extreme Energy Cosmic Rays) than present on-going or planned experiments will give. (2) EE (Extreme Energy) neutrino astronomy by identifying EAS due to neutrinos from EECR collisions with CMB photons, (3) GRB (Gamma Ray Bursts) for the purpose of adding, at no extra cost, to sky coverage by other satellites, and (4) Discovery potential, typified by the possibility of observing flashes of atmospheric light emitted upward by VHE neutrinos that interact after penetrating most of the earth.