

Extreme Astronomy

Prof. Jim Hinton

Department of Physics & Astronomy, University of Leicester, UK

Astroparticle physics is a rapidly developing discipline at the intersection of Particle Physics, Astronomy and Cosmology. Experiments in this field are often very novel in design and extremely ambitious. A major theme is the hunt for the sources of the so-called cosmic rays, taking us to the extreme end of the electromagnetic spectrum, and beyond in to "multi-messenger" astronomy with neutrinos and charged particles as well as photons. Here I provide a personal perspective on the recent history of this hunt, in particular the pursuit via the highest energy photons. My story ends with the plans to build the first true astroparticle physics observatory: the Cherenkov Telescope Array, which promises to transform our understanding of the highest energy processes in the universe.