Contribution ID: **44** Type: **Invited Talk**

Satellite-borne and cosmic-ray detectors

Monday 19 February 2007 14:00 (50 minutes)

The origin of cosmic rays has been a great mystery since they were discovered by Victor Hess in 1912. The AGASA observation of ultra-high-energy cosmic rays (UHECR) possibly beyond the GZK cutoff stimulated the field a great deal. In addition, the Kamiokande detection of neutrinos from SN1987A and the H.E.S.S. detection of TeV gamma-rays from supernova remnants demonstrated the viability of neutrino and TeV gamma-ray astronomy for cosmic-ray research. The new generation of currently-operating or soon-to-be-operating detectors for charged particles, gamma-rays and neutrinos from cosmos will get us even closer to understanding the nature and origin of cosmic rays. Detectors for UHECRs, gamma rays and neutrinos are of particular importance in order to study the origins of cosmic rays since these particles are free from the deflection due to magnetic fields. Detectors for antiparticles and gamma rays would be useful to detect cosmic rays originating from the decay of the dark matter in the Universe. I will review these cosmic-ray detectors with particular attention on the differences of ground-based, balloon-borne and satellite-borne detectors.

Primary author: TAJIMA, Hiroyasu (SLAC)

Presenter: TAJIMA, Hiroyasu (SLAC)

Session Classification: Session 2