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## FACT - Charged Cosmic Ray Particles as a Tool for Atmospheric Monitoring

*Thursday 30 July 2015 15:30 (1 hour)*

FACT is the first Imaging Air Cherenkov Telescope to use solid-state photosensors (G-APD/SiPM) in order to measure the light flashes induced by air-showers. A vital part of the telescope system is the atmosphere.

Typically, external devices such as LIDARs are used to quantify the quality of the atmospheric condition. Due to the exceptional stability of G-APD sensors, a different approach to monitor the quality of the atmosphere can be implemented. Due to this stability variations of the measured charged cosmic ray flux are an effect of changes of the atmosphere. Trigger rates of FACT are already used to identify strong disturbances for example clouds or Calima.

In a new study, we use the data taken during the past years to investigate more subtle effects like the difference between summer and winter atmosphere predicted by Monte Carlo simulations.

### Collaboration

FACT

### Registration number following "ICRC2015-I/"

874

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