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FACT - Observations of the Blazar 1ES 1959+650

The First G-APD Cherenkov Telescope (FACT) has been monitoring the blazar 1ES 1959+650 since 2012.
While the source was found in a low state in the first three years,
a major flaring activity was detected in 2016 with several outbursts.
In total there are more than 1000 hours of observations on this source.
It has been observed at high zenith angles and also during bright moon.
The data sample includes more than 250 hours of data at zenith angles of more than 40° and
about 150 hours with very bright moon.
Observations performed under these conditions have an increased trigger threshold.
Given the power law spectra of the source, this results in a reduced gamma rate.
In order to use these data in for example variability studies, this effect has to be corrected for.
While calculating fluxes involves Monte Carlo simulation, with a simple method the gamma rate can be corrected.
In the presented study, the results of a quick-loock analysis are used.
Therefore the zenith and thereshold dependencies of the Crab-Nebulas excess rate have been studied
and correction functions have been applied to the 1ES 1959+650 data sample.
The corrected rates can be used for further studies on the flaring period in 2016.

Author: Mr HERBST, Tobias (Universität Würzburg)

Co-author: COLLABORATION, FACT (ETH Zürich, ISDC, TU Dortmund, Universität Würzburg)

Presenter: Mr HERBST, Tobias (Universität Würzburg)

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