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Blazar Monitoring with FACT

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The First G-APD Cherenkov Telescope (FACT) is pioneering the usage of solid state photo sensors (G-APD aka SiPM) for measuring the dim flashes of Cherenkov light initiated by the interaction of a high energetic particles or photons with the atmosphere. One advantage of these sensors is that they donot degrade even when exposed to bright light. Therefore, FACT can operate with standard setup also under strong moonlight conditions. In the past five years, the operation of FACT has been very smooth and got automatized to a large extent, resulting in a data taking efficiency reaching 95% if weather permits. Temperature dependencies of the sensors are well under control without the need of any temperature stabilization system, resulting in very stable data taking conditions. This makes FACT an ideal device for unbiased long-term monitoring of variable sources of very high-energy gamma-ray emission.

While the sensitivity of FACT is limited by the small mirror area of $\sim 9.5\text{m}^2$, it is sufficient to measure the emission from the brightest Blazars like Mrk421, Mrk501 and 1ES1959 and alerting the community in case of bright flares.

While Mrk421 and Mrk501 showed several flaring episodes over the last years, 1ES1959+650 was in a low state for the first three years. In 2015 an increase of the flux was observed, and in 2016, several bright outbursts have been recorded.

In this presentation, the results of five year of unbiased Blazar monitoring will be presented.

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