

## Probe AGNs variability with the Cerenkov Telescope Array

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Relativistic jets launched by blazars are among the most powerful particle accelerators in the Universe. The emission over the entire electromagnetic spectrum of these relativistic jets can be extremely variable with scales of variability from less than few minutes up to several years. These variability patterns, which can be very complex, contain information about the acceleration processes of the particles and the area(s) of emission. Thanks to its sensitivity, five-to twenty-times better than the current generation of Imaging Atmospheric Cherenkov Telescopes depending on energy, CTA will be able to follow the emission from these objects with a very accurate time sampling and over a wide spectral coverage from 20 GeV to 300 TeV and thus reveal the nature of the acceleration processes at work in these objects. We will show the first results of our lightcurve simulations and long-term behavior of blazars as will be observed by CTA, based on state-of-art particle acceleration models.

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