Executive Summary #817

The variability patterns of PG 1553+113: a MAGIC perspective

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What is this contribution about?

In this contribution we report the results of the MAGIC observation campaign on the blazar PG 1553+113 in a multi-wavelength context.

Why is it relevant / interesting?

PG1553+113 is one of the few blazars with a convincing **quasi-periodic emission** in the **gamma-ray band** detected by the *Fermi*-LAT satellite.
A multi-wavelength study of its electromagnetic emission is the key tool to unveil the origin of the variability of the source

What have we done?

We have **characterised the variability** of the integral emission at very-high-energy gamma rays (MAGIC), X-ray (Swift-XRT), optical photometry and optical polarimetry with more than **10 years of data** and three years of intense monitoring.

What is the result?

The main result of our study is that a simple geometrical model cannot properly describe the observed data. In particular it cannot account for the variability observed and the properties of the polarimetric data (fractional polarization and EVPA).