

## **Executive Summary contribution #817**

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**Title:** 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).