What is this contribution about?

We present a method to calibrate VERITAS simulations, therefore Instrument Response Functions, for throughput changes resulting from ageing of the telescope components.

Why is it relevant / interesting?

Calibrating the optical and electronic response and its evolution in IACTs is essential to correctly reconstruct gamma-ray event energies and source fluxes.

What have we done?

Monitor mirror reflectivities and camera gains for VERITAS over several years to correct existing Monte Carlo simulations of the instrument and produce throughput calibrated Instrument Response Functions that can be used to analyze real data.

What is the result?

The method works and is now standard in VERITAS, correctly reproducing event energies and source fluxes within the aimed precision.