

## **THE INFLUENCE OF THE DETECTOR SYSTEM ON THE MEASUREMENTS OF MUON ARRIVAL TIMES IN EXTENSIVE AIR SHOWERS (EAS)**

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Arrival time distributions of EAS muons carry information about the production profile of the EAS muonic component. The measured distributions are affected and distorted by various interwoven effects which arise from the time resolution of the timing detectors, from fluctuations of the reference time and the number of detected muons spanning the arrival time distribution of a single EAS event. The origin of these effects is discussed and correction procedures which involve detailed simulations are proposed.