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Transient Handler for the LST-1 prototype

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In 2019, the first firm detection of a very high energy (VHE, E>100 GeV) emission component from Gamma-ray Bursts (GRBs) has definitely opened a new observational window for the study of those enigmatic transient events.These discoveries did not arrive unexpectedly but they represent the result of a 20-years-long-lasting hunt by the major Cherenkov telescope collaborations. Furthermore, the recently discovered high-energy neutrinos and gravitational waves from astrophysical sources have opened the era of the so-called multi-messenger astrophysics. The proven connection between gravitational waves and short GRBs has shown the importance of coordinated follow-up observations triggered by different cosmic signals. However, the unpredictable nature of the transient sky makes it difficult for the large ground-based IACTs to point and start follow-up of these sources rapidly enough to catch their early emission phase(s). The instrument response to external triggers (GRB and multi-messenger transients) relies on a dedicated transient handler. In this contribution , I will report about the first implementation of transient handler within the LST-1 framework.

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