

# Probing the early phase of the brightest LSST transients : a possible dynamic survey preceding the LSST visits and performed from the Indian Ocean

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Exploiting the gigantic flow of transient sky alerts uncovered by LSST will be one of the most outstanding challenges that the community of Time-Domain Astrophysics will face in the coming years. I will present a Phase-A project of a small robotic telescope operating from the Indian Ocean and that will cover 8 hours ahead of Chile the fields visited by LSST every night. Reaching typical magnitudes of 20 in the R band, this facility is meant to provide unique constraints on the early phase of the brightest transient sources discovered by LSST, also thanks to an articulation that we plan to set up with the FINK full-stream alert broker. It will also be planned to react to transient sky alerts sent through VOEvents, so as to contribute to the identification and the photometric follow-up of the optical counterparts associated to multi-messenger phenomena such as gravitational waves, neutrino emission, gamma-ray bursts and supernovae. We propose to install this equipment at the “Observatoire du Maito” on Reunion island, which offers excellent astro-climatic conditions and where INSU facilities are already operated.

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