

H.E.S.S. Observations of the Gamma-ray Binary LMC P3

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LMC P3 is a gamma-ray binary comprising of an unconfirmed compact object and an O-star and is located in the Large Magellanic Cloud. Initially discovered in Fermi-LAT data, it shows an orbital period of 10.3 days. H.E.S.S. has reported the detected VHE gamma-ray emission during only 20% of the orbit, between orbital phases 0.2 and 0.4, which roughly corresponds to the inferior conjunction of the compact object. H.E.S.S. has continued the observations of this object since then. Here we will present new results obtained with a much deeper data set. The new data allow a more precise measurement of the location of the VHE gamma-ray peak along the orbit of the system to be made. We will interpret these results with respect to emission and absorption mechanisms in gamma-ray binary systems.

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