

The quest to close the gaps in LLPs searches in the Higgs sector

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Higgs decaying to LLPs is an important part of the LLP search. In the past decade, ATLAS has established a comprehensive search programme covering a wide range of lifetimes. Due to the reconstruction and triggering challenges, dedicated analysis strategies have to be crafted, often resulting in analyses optimised for a very particular phase space. I will give a chronological review of how ATLAS managed to close the gaps gradually in LLP searches and standardise the LLP searches.

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