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【323】 Inclusive search for HNLs at LHCb with Run 2 data

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The search for Heavy Neutral Leptons (HNLs) is performed in inclusive decays of hadrons containing a b quark using a mass-lifetime phase space scan. HNLs are weakly coupling particles that can provide a minimal solution to several outstanding problems in particle physics. An inclusive approach is a key point of this analysis which enhances the sensitivity and allows to better constrain HNL parameters. This search employs a frequentist scan of the invariant mass spectrum of the reconstructed HNL candidates. In order to increase the sensitivity for different lifetimes, the search is performed in three regions of HNL displacement.

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