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HNL decays in the GeV mass range: Multihadron final states

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Heavy neutral leptons (HNLs) in the GeV mass range can decay through a rich variety of semileptonic hadronic channels. We study HNL decays into two- and three-pseudoscalar meson final states through both charged- and neutral-current interactions. The aim is to improve the description of exclusive HNL hadronic decays in the GeV region and to assess their impact on the total HNL decay width relevant for experimental searches. Incorporating phenomenological form factors constrained by hadronic tau decays, we present preliminary results for several multihadronic channels.

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