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Search for the production of a long lived neutral particle which decays hadronically in association with a Z boson in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector MICHAEL WERNER, Iowa State Univ, ATLAS COLLABORATION — Despite the increasing luminosity of the LHC, no new particles beyond the standard model have yet been found by conventional searches. This has led to interest in more exotic signatures of potential new particles. One such exotic signature is a jet without tracks and almost all of its energy deposited in the hadronic calorimeter vs the electromagnetic calorimeter (which lies closer to the beam). A long lived neutral particle that traverses the detector into the HCal before decaying hadronically would produce such a signature. In this talk, I will present a search for such a particle recoiling against a standard model Z boson in pp collisions at $\sqrt{s} = 13$ TeV with the ATLAS detector.

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