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Searches for supersymmetry in final states with a Z boson with the ATLAS detector DEVIN HARPER, University of Michigan, ATLAS COLLABORATION — This talk presents searches for supersymmetry in the final state with events containing a Z boson ($Z \to \ell\ell$, $\ell = e, \mu$), large missing transverse momentum and jets. Two ATLAS analyses are presented, one using a data sample of 1 fb^{-1} collected at $\sqrt{s} = 7$ TeV and the other using 6 fb^{-1} collected at $\sqrt{s} = 8$ TeV. No excesses above the Standard Model background expectation were observed. The results were interpreted in the context of a general gauge mediation (GGM) scenario, where the lightest supersymmetric particle is the gravitino and the next-to-lightest supersymmetric particle is a Higgsino-like neutralino.

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