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Understanding the fundamental nature of the universe using the ATLAS detector at the LHC

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After a brief reflection on the accomplishments of the ATLAS experiment from Run 1 of the LHC with proton-proton collisions at 7 and 8 TeV, I will give an overview of results thus far from Run 2, at 13 TeV collision energy. With the exceptional performance of the LHC, the resulting data is pushing the Standard Model of particle physics to its limits, and constraining possibilities for its successor. I will survey the status of searches for some of these possibilities.