

Wade Fisher – Colloquium 11/07/2019
MSU

Title: The New Path to New Physics at the LHC

Abstract: During Run 2 of the LHC, experiments increased their data sample by a factor of 6 and researchers are diligently studying it for signs of new physics. Despite fleeting hints, no dramatic signs of new phenomena have been observed. Meanwhile, the LHC is currently shut down for a planned upgrade, with the promise of enhanced data collection capabilities starting in 2021. LHC researchers are preparing new strategies to find even more subtle signs of new physics, with an eye to future data sets 20 times larger than today. This presentation will describe the challenges and the opportunities awaiting the ATLAS collaboration, with a focus on specific MSU contributions.