

Abstract Submitted
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Dark Matter Production with Boosted W/Z Bosons at Large Hadron Collider -LHC¹ RENE NSANZINEZA, Hendrix College — Nature of dark matter is one of the most important questions for the universe. Until today, no one knows what kind of particles form the dark matter despite several evidences of its presence in the universe. This research describes how dark matter can be pair produced in the Large Hadron Collider (LHC). Methods and procedures used to distinguish dark matter and ordinary matter are explained. An analysis of Monte Carlo simulation has been studied for dark matter mass of $100 \text{ GeV}/c^2$. The future work for this ongoing project will be based on testing data from the Compact Muon Solenoid at LHC using the results of the Monte Carlo simulation.

¹Fermi National Accelerator Laboratory

Rene Nsanzineza
Hendrix College

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