

Phenomenology 2021 Symposium



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The Higgs of Baryon Number and Dark Matter

Monday, 24 May 2021 18:00 (15 minutes)

I will discuss the correlation between dark matter and Higgs decays in gauge theories where the dark matter is predicted from anomaly cancellation. In these theories, the Higgs responsible for the breaking of the gauge symmetry generates the mass for the dark matter candidate. We investigate the Higgs decays in the minimal gauge theory for Baryon number. After imposing the dark matter density and direct detection constraints, we find that the new Higgs can have a large branching ratio into two photons or into dark matter. Furthermore, we discuss the production channels and the signatures at the Large Hadron Collider

Summary

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