

Constraints on a Two Mediator Dark Matter Model from Simplified Models

Tuesday 25 February 2025 16:50 (15 minutes)

We consider a simple Dark Matter model containing both a scalar and a vector mediator. The model provides a framework for generating the mediators and Dark Matter masses while maintaining a small number of free parameters. Using simplified model results from missing energy and resonance searches, we discuss how well this model is probed by current searches and the interplay between the distinct types of searches. Some of the limitations and issues found when trying to reinterpret simplified model results from exotics searches will also be addressed.

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Session Classification: Reinterpretation studies (pheno)