

Mind the gap: exclusion limits and unconventional searches for leptoquarks

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To search for physics beyond the Standard Model at colliders like the Large Hadron Collider (LHC), experimentalists often rely on simple phenomenological models. So far, these searches have not yielded positive results. Nevertheless, there are compelling reasons to believe that new physics should exist at the TeV scale, within the LHC's reach. In this talk, I will demonstrate how one can reinterpret LHC results to establish exclusion limits on leptoquark models by incorporating various production mechanisms. I will also highlight examples of intriguing and unexplored leptoquark signatures that are predicted by several well-motivated models but have not yet been considered by experimentalists.

Track type

Collider and BSM Physics

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