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## **Challenges in searches for dark matter at the LHC in forward proton mode**

We discuss the prospects of searches for pair production at the LHC with forward proton detectors of new BSM states with subsequent decays into cosmologically stable dark matter.

As a topical example we consider production of slepton and chargino pairs in the MSSM with compressed mass spectra, where the natural candidate for cold dark matter is the lightest neutralino.

Special attention is paid to various challenges which such searches face in the case of high pile-up environment.

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