

Warsaw Workshop on Non-Standard Dark Matter: multicomponent scenarios and beyond

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Spectral features in the MeV gap

Content :

Dark matter with mass of a few GeV can lead to observable signals in gamma rays with energies peaked at $O(100 \text{ MeV})$. In such scenarios a significant part of the signal falls into the „MeV gap”, a drop in sensitivity of current observational coverage with energies in the range 0.1-100 MeV. A gap that will soon be probed by new planned experiments. In this talk we point out the existence of novel spectral features in precisely this photon energy range. Such features are generic, as they depend on SM physics alone, although are clearly pronounced only in specific scenarios. We will discuss origin and importance of these features, as well as some implications for phenomenology.

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