

Study of internal bremsstrahlung in the inert doublet model

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We show evidence for the existence of internal bremsstrahlung signatures in the Inert Doublet Model (IDM). In particular, we show they naturally arise in the high dark matter mass regime due to the near-degeneracy of the extra scalar masses. We calculate the corresponding annihilation cross-sections and compare them against constraints coming from direct and indirect dark matter searches. Finally we comment on the possibility of observing this feature in the H.E.S.S experiment.

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