

Peering into the Gap: Learning about Dark Matter from the Pair Instability Mass Gap

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Current models of stellar evolution predict a lack of black holes in the mass range 50-140 solar masses. We explore one way that introducing dark matter to this stellar evolution could influence this mass gap. In particular, given appropriate conditions, it is possible that the addition of dark matter may offer a way to produce black holes throughout this mass gap. In addition, we explore how dark matter could play a role in producing stellar evolution effects that could be observable.

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