

## Dynamical constraints on PBH clusters

*Wednesday, 15 May 2024 16:45 (5 minutes)*

In the high mass range, primordial black holes are constrained by the observed velocity dispersion of the Galactic disk, as they are expected to heat up stars through two-body encounters. These constraints have been obtained assuming that the PBHs are smoothly distributed in the DM halo. However, PBHs are expected to form bound structures under the effect of gravity; furthermore, it has been argued that they are likely to be already born in clusters. In this work, we investigate how the heating of the galactic disk constrains the abundance of PBHs when clustering is taken into account.

**Would you be interested in presenting a poster? (this will not impact the decision on your talk)**

yes

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**Session Classification:** Dark Matter