

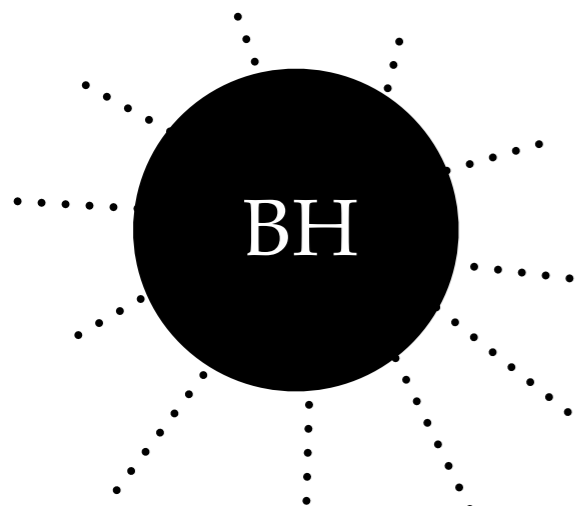
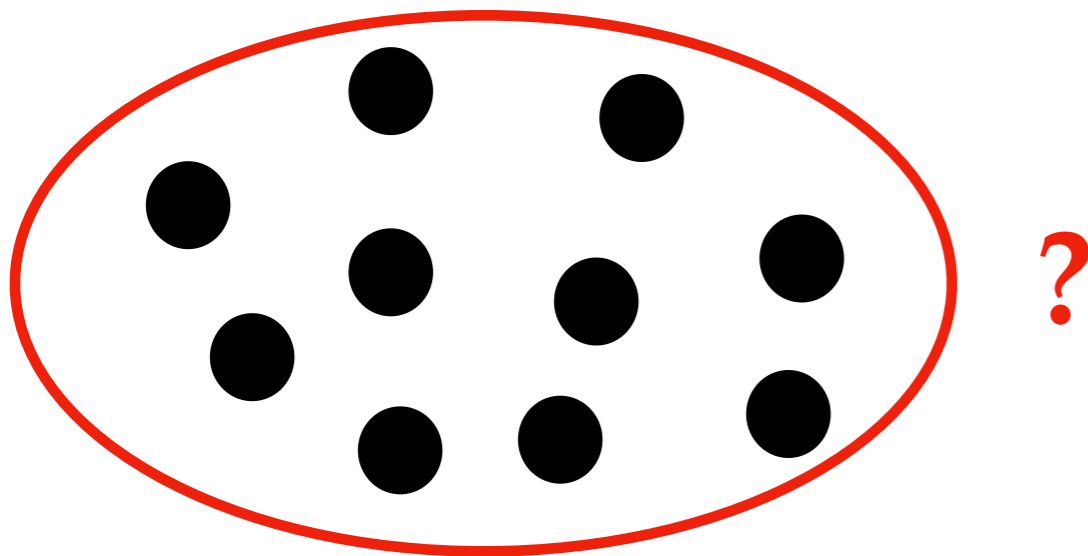
Gordan Krnjaic: Astro Theory

“Dark Radiation and Superheavy Dark Matter and from Black Hole Domination”
With Dan Hooper & Sam McDermott

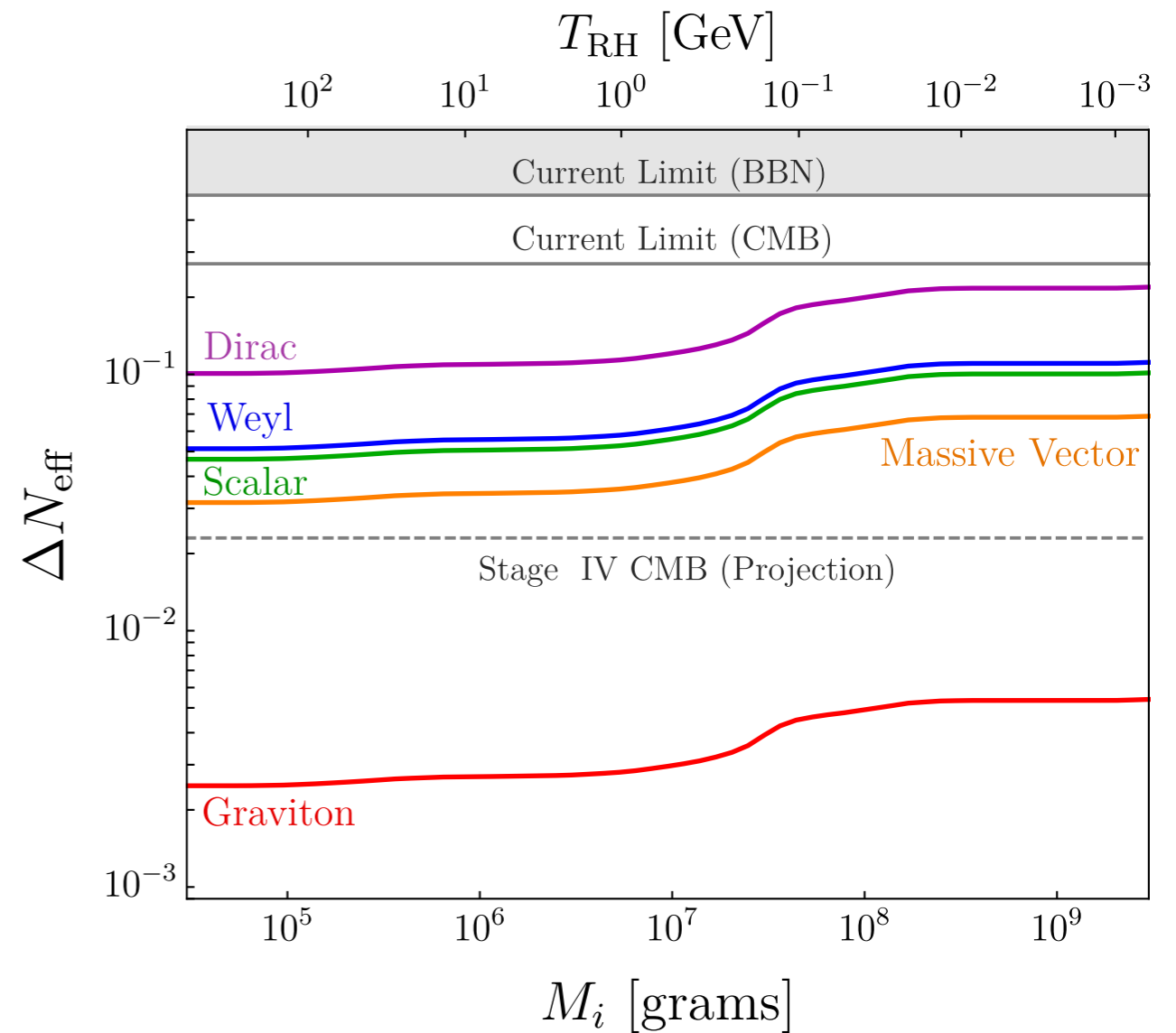


Kent Ureda **Congrats!** That title is metal AF.

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$$i = \text{SM} + \text{DM} + \text{axion} + \dots$$



[aXiv:1905.01301](https://arxiv.org/abs/1905.01301)

Constraining the Self-Interacting Neutrino Interpretation of the Hubble Tension

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arXiv:1905.02727

Strong neutrino self interactions

Proposed to explain ~ 4.4 sigma H0 tension
 The only known particle physics explanation

[Cyr-Racine et. al. 1902.00534]

We find prohibitive limits on this scenario

BBN light element yields

Rare kaon/tau decays

Neutrinoless double beta decay

RH neutrino thermalization (if Dirac)

We identify last remaining viable option

New scalar force coupled to tau-neutrinos

Accepted in Phys.Rev.Lett.

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