

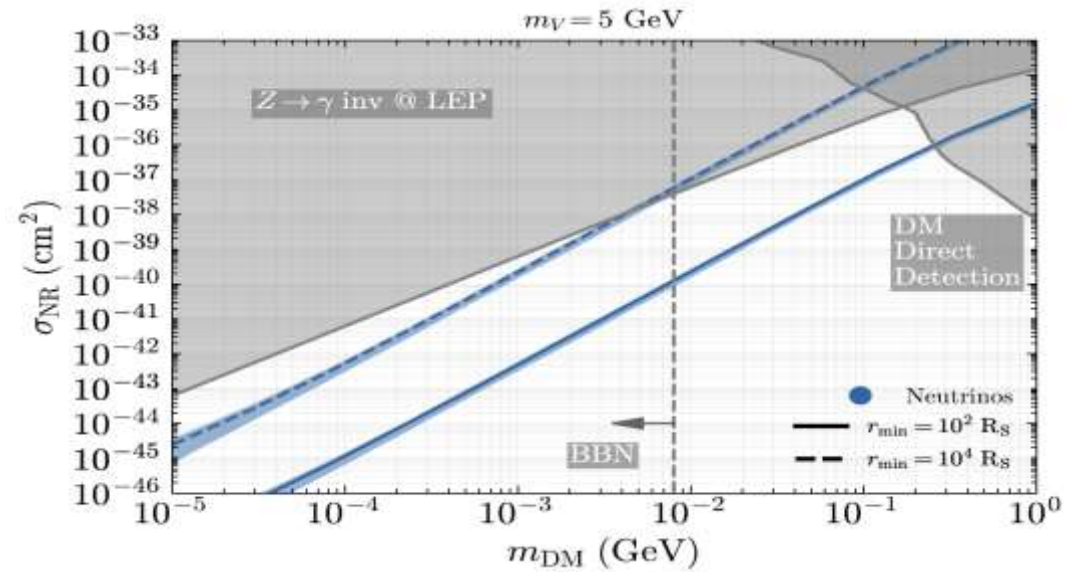
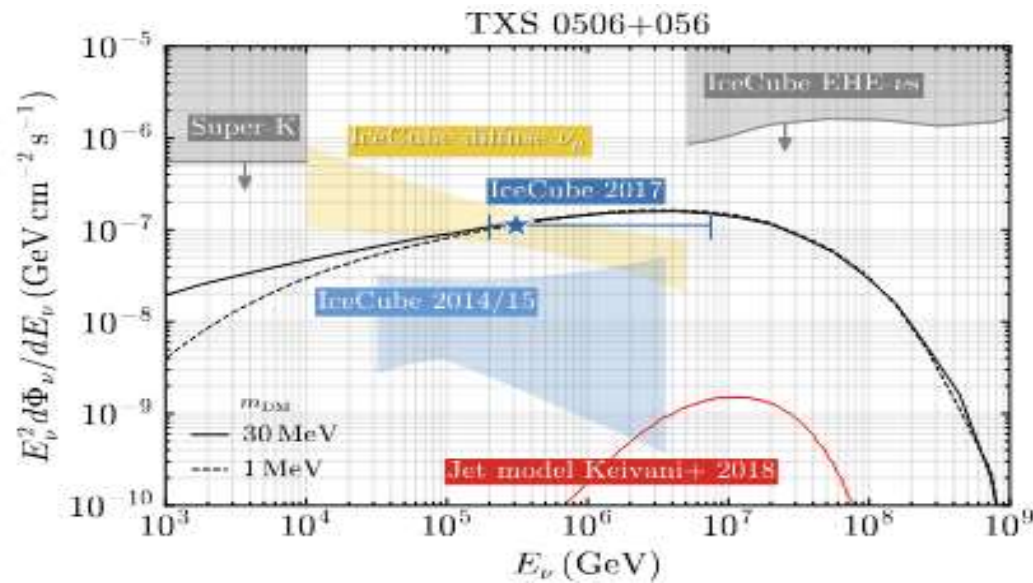
Could Dark Matter around blazars source IceCube neutrinos?

Key message: **Dark-Matter proton scatterings** around **blazars** may source high-energy **neutrinos** detected by **IceCube: TXS 0506+056** and **diffuse flux**!

A.G. De Marchi, A. Granelli, J.N., F. Sala
arXiv: 2412.07861,
2506.06416, 2507.12278

- **Astrophysics: Lepto-Hadronic model** for the jet, power-law spectrum for protons, but **too few neutrinos**!
- **BSM: DM spike around the BH**, look at neutrino signal produced by DM-proton interactions

$$\chi + p \rightarrow \chi + X \rightarrow \chi + \text{hadronic showers} + \gamma\text{-rays} + \text{neutrinos}.$$



For the future: Need DM included in Blazar jet models!