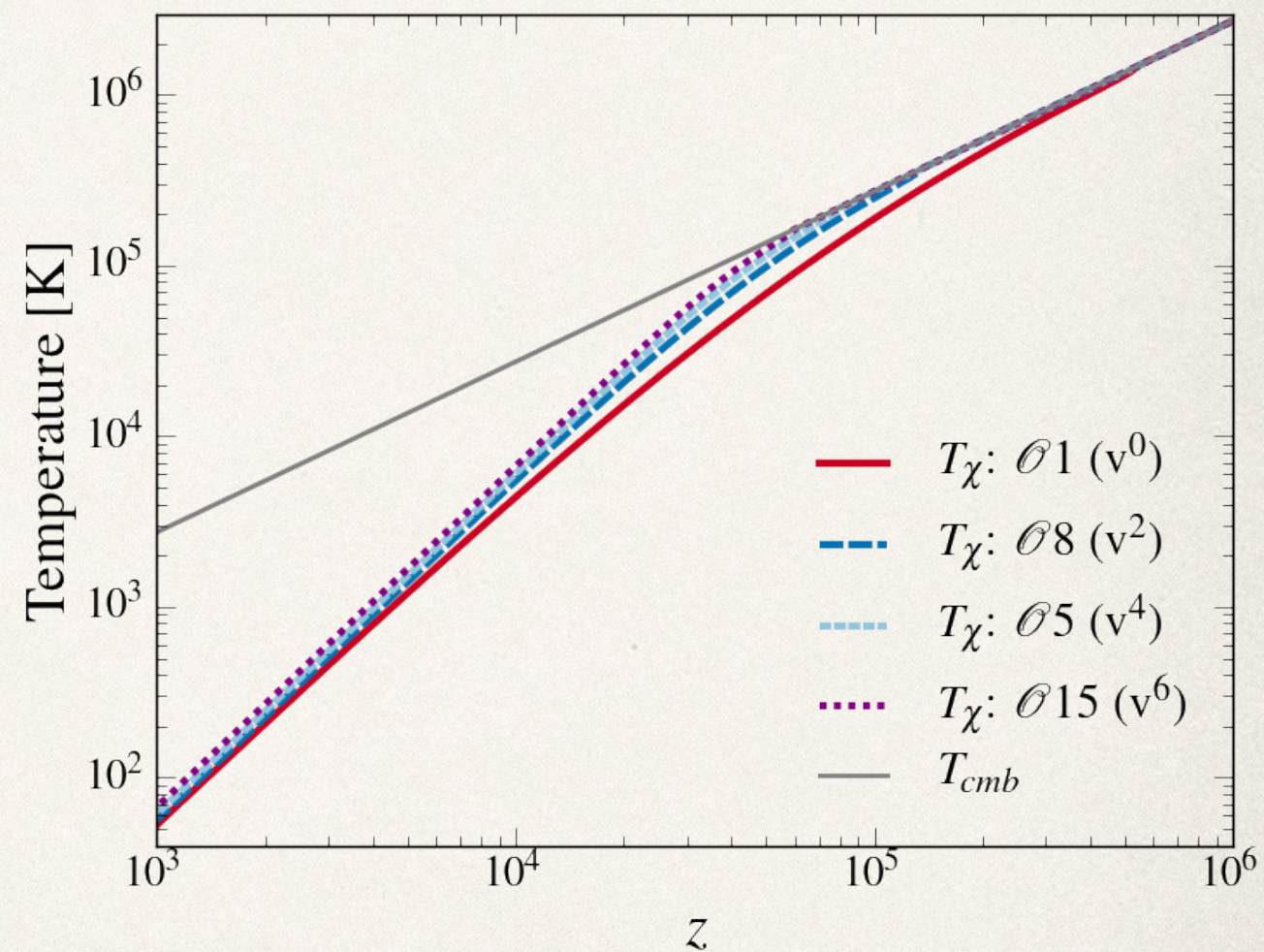
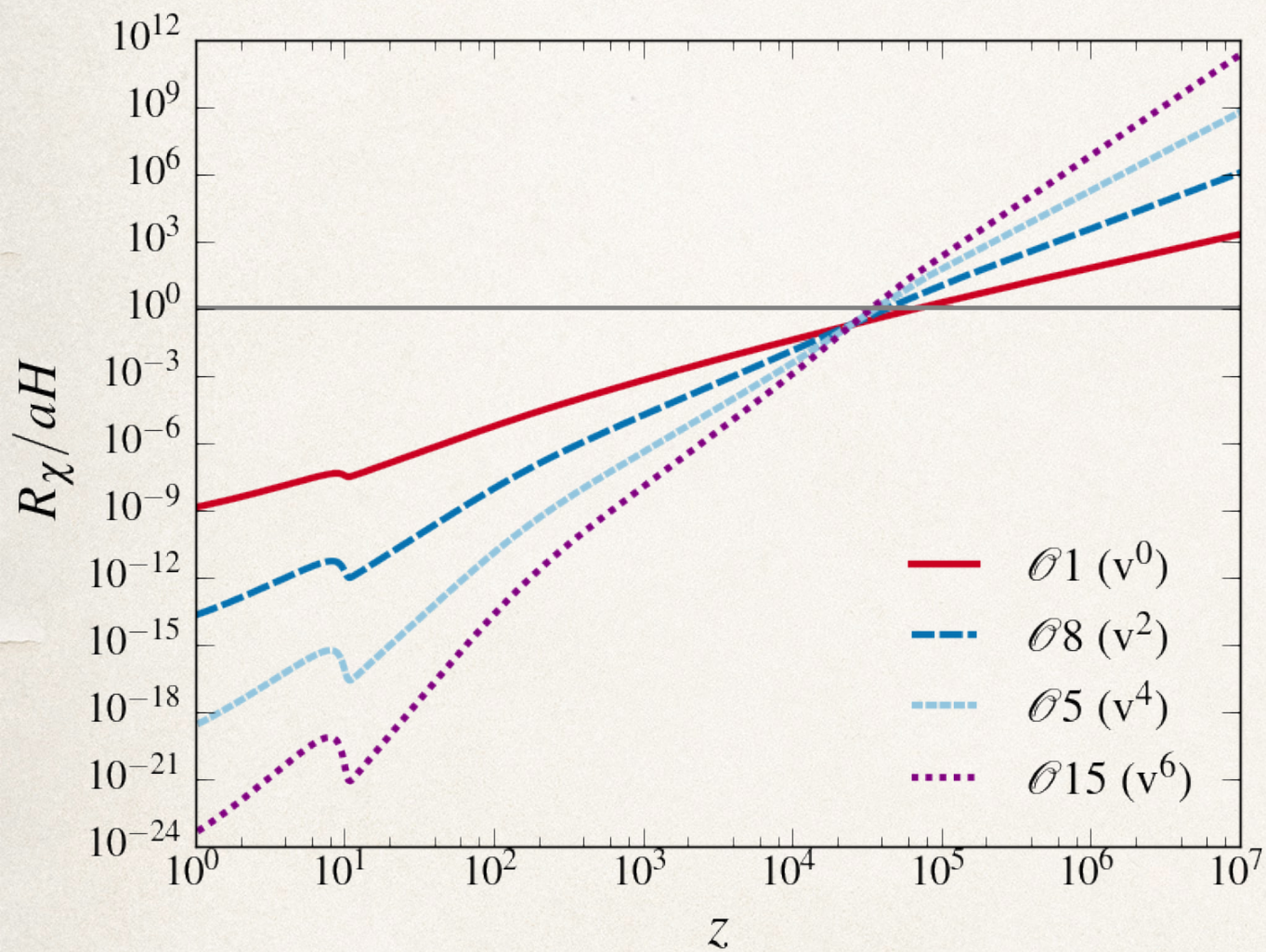


Dark Matter:

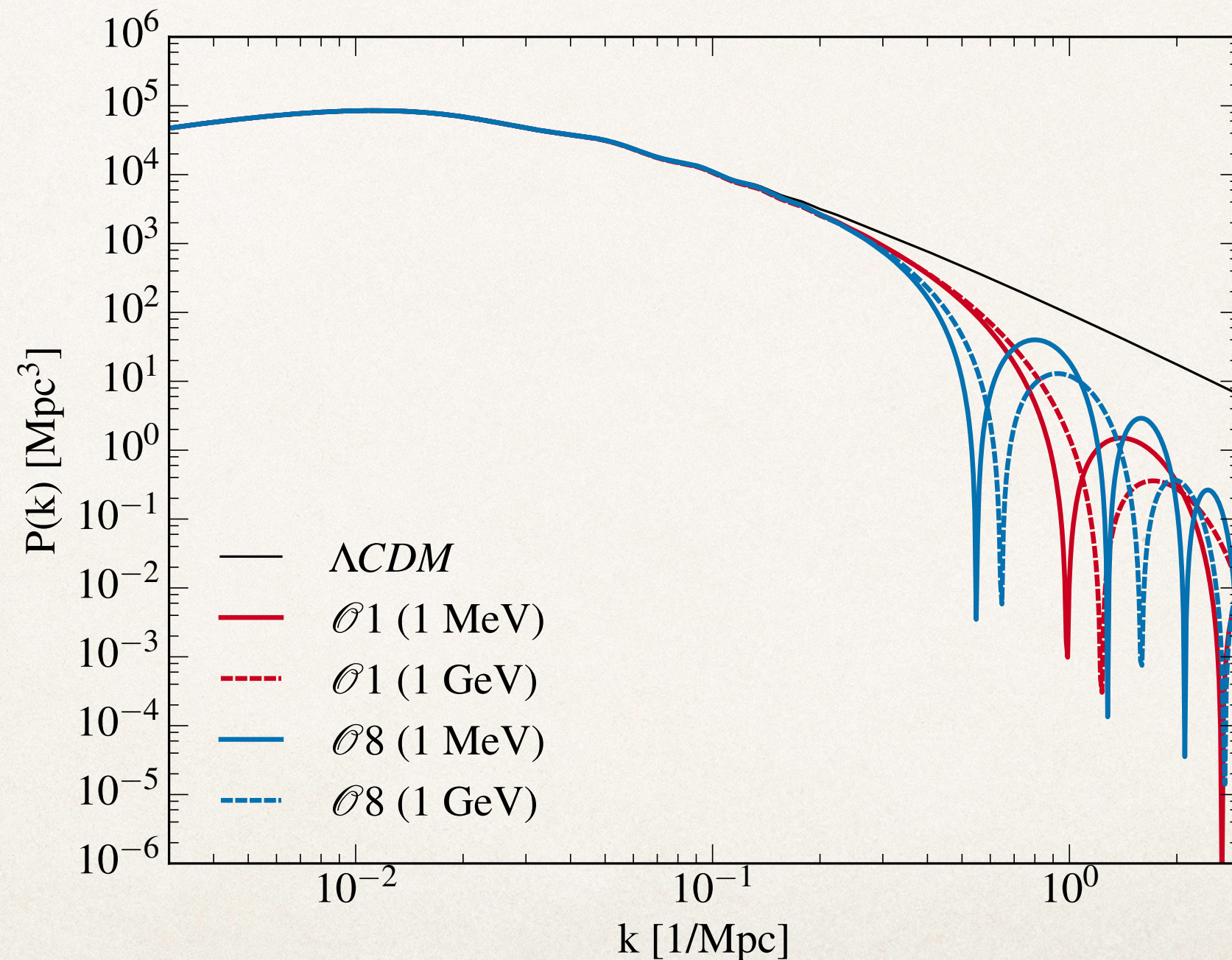
Beyond Λ CDM and WIMPs

- ❖ WIMP miracle was one bridge between cosmology and particle physics: thermal freeze-out $\rightarrow$ DM relic abundance
- ❖ No WIMP discovery at the LHC or from direct detection
- ❖ Broaden the scope to search for generic interactions, which have distinct cosmological signatures
- ❖ We can search for and constrain particle interactions of DM and baryons using the primary CMB and other cosmological observables
- ❖ DM-baryon interactions $\rightarrow$ transfer momentum (and heat) $\rightarrow$ drag force

Rate Evolution



Linear Matter Power Spectrum



Scattering Constraints

KB and Gluscevic (1801.08609)

