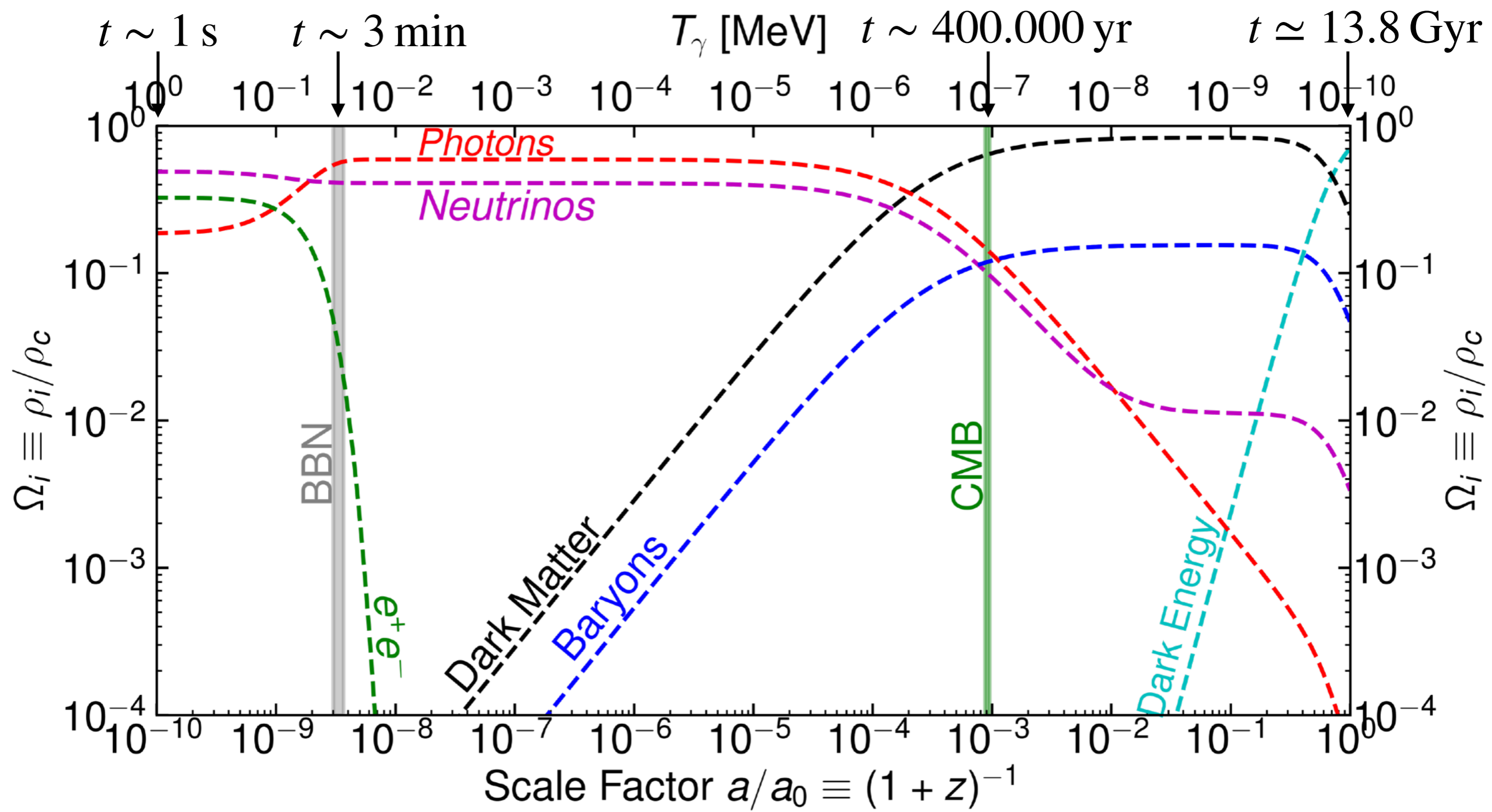
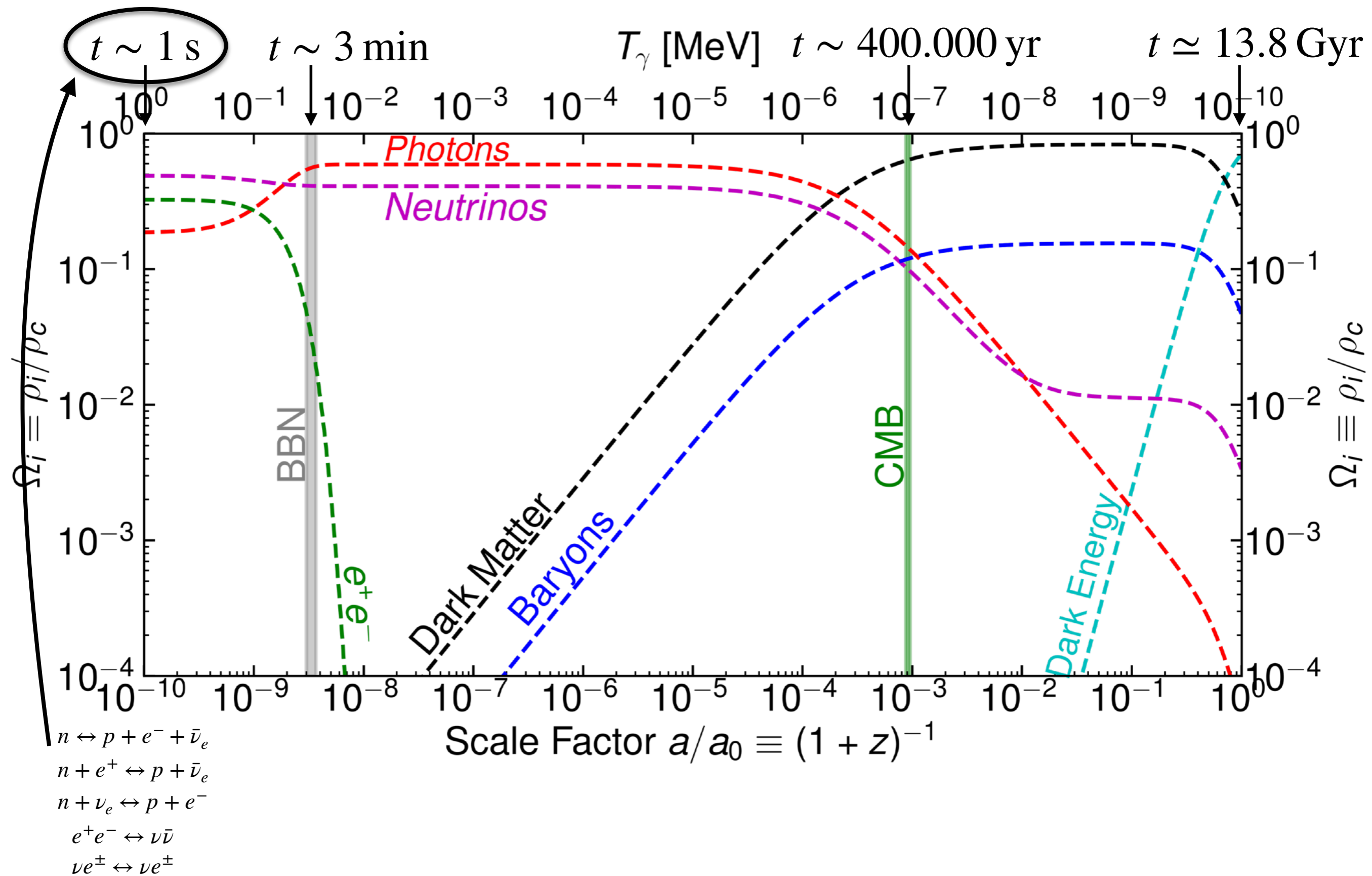


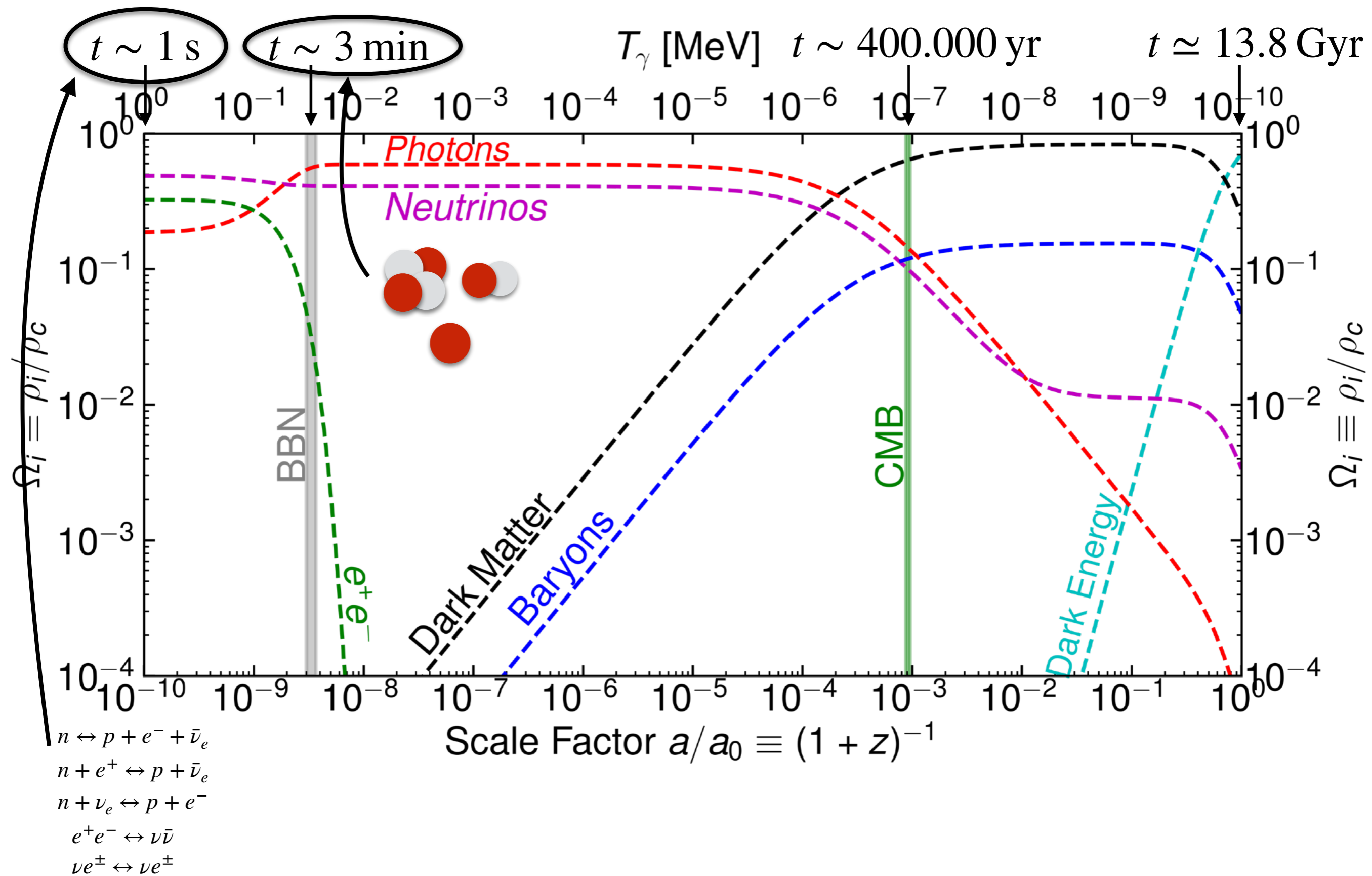
Discussion

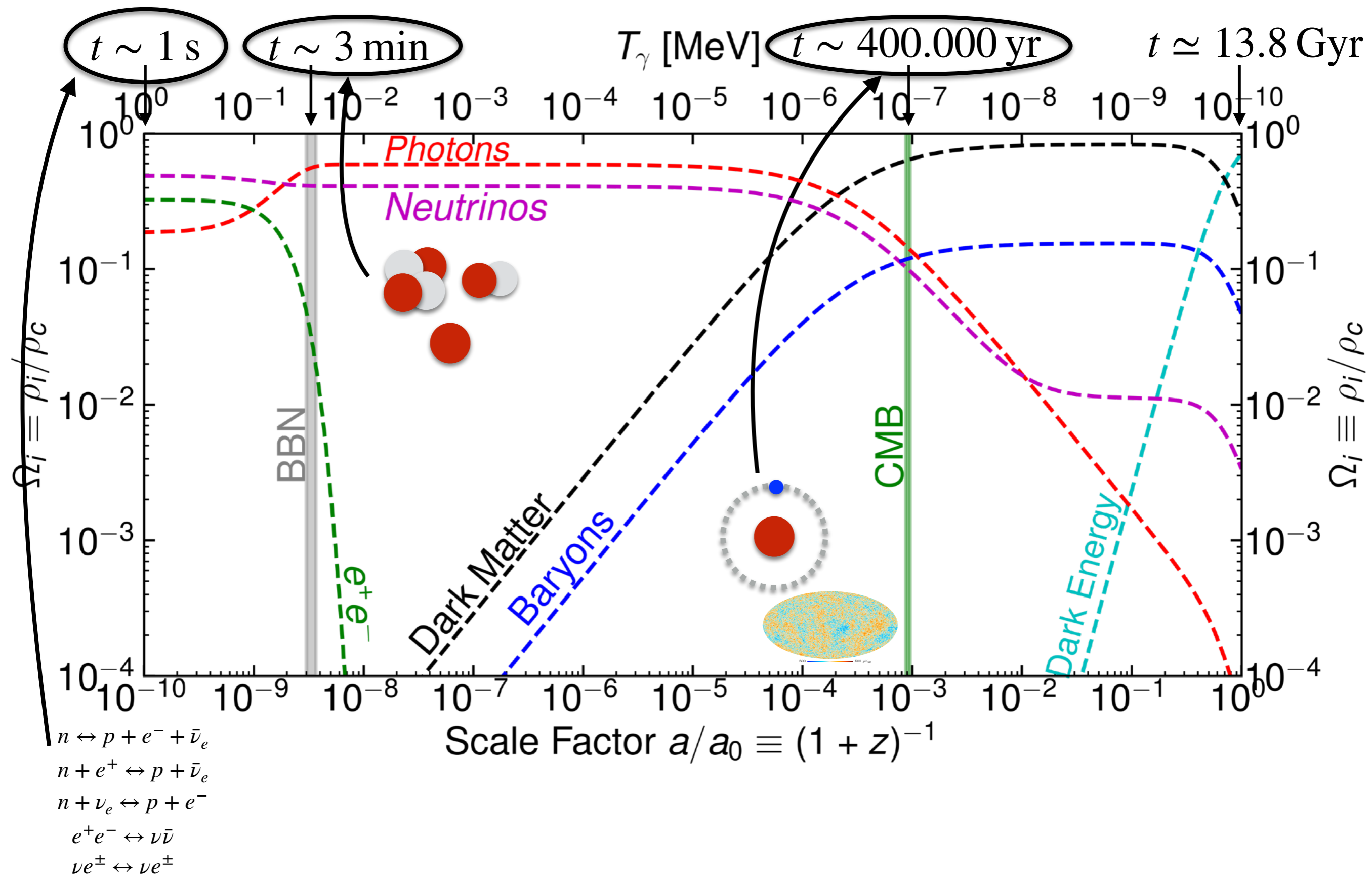
Shaking LCDM, not stirring

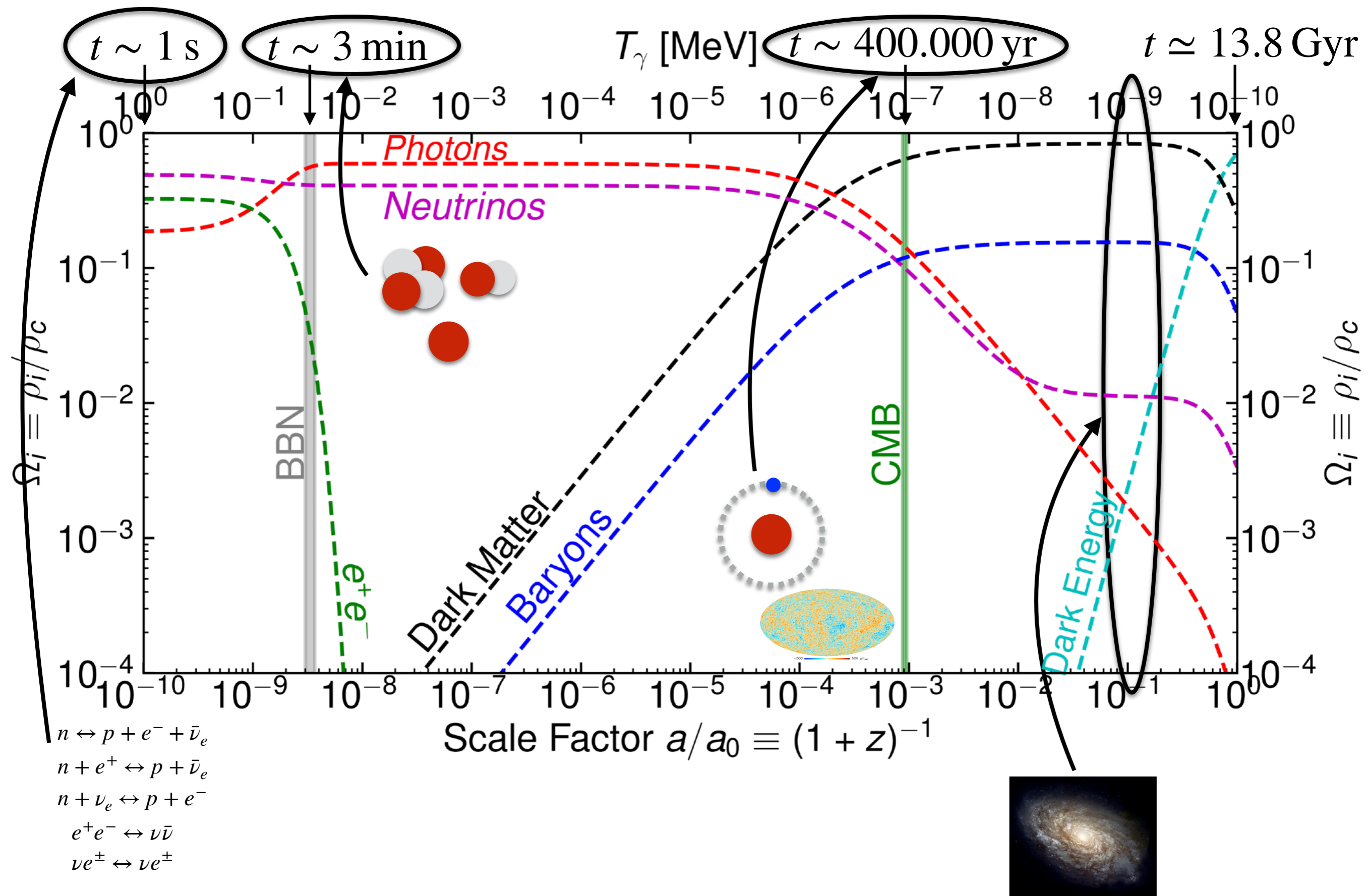
William Giare & Miguel Escudero



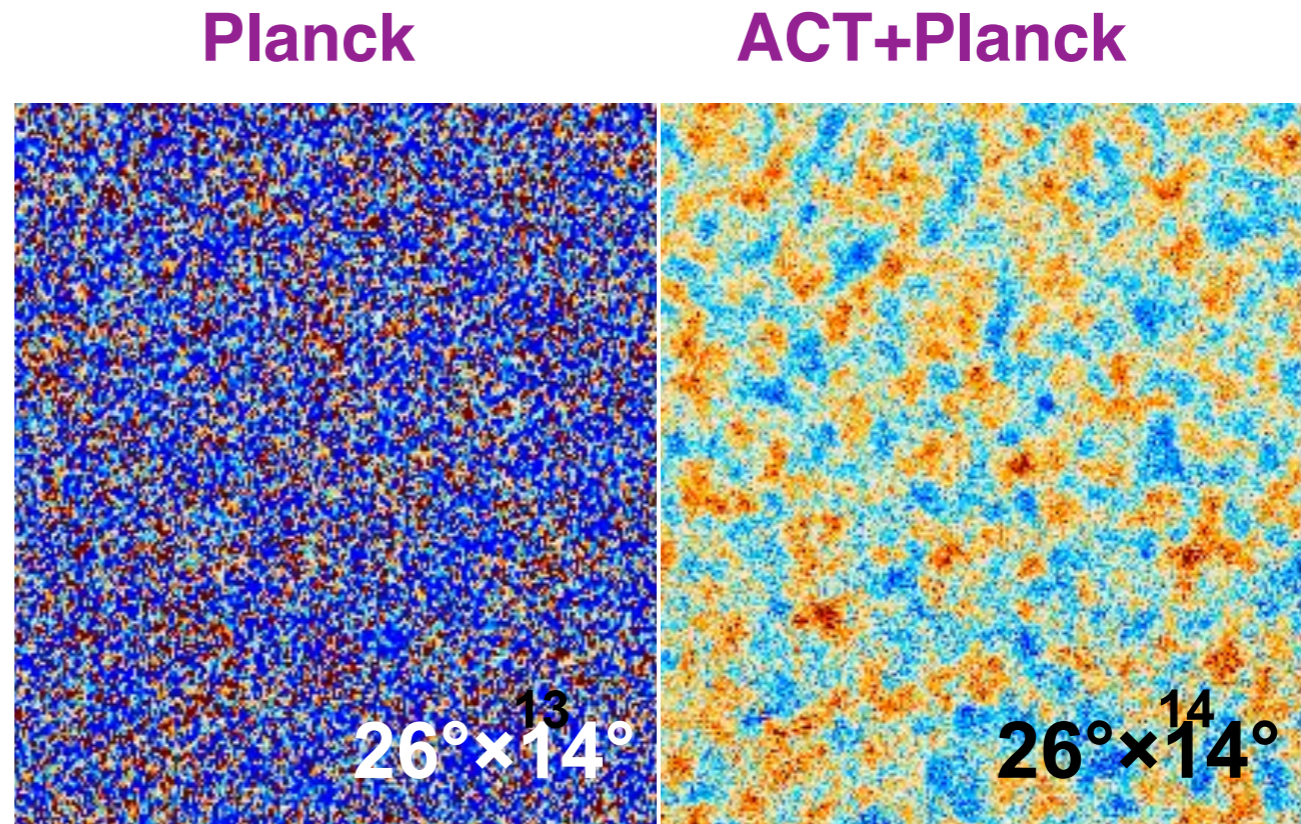




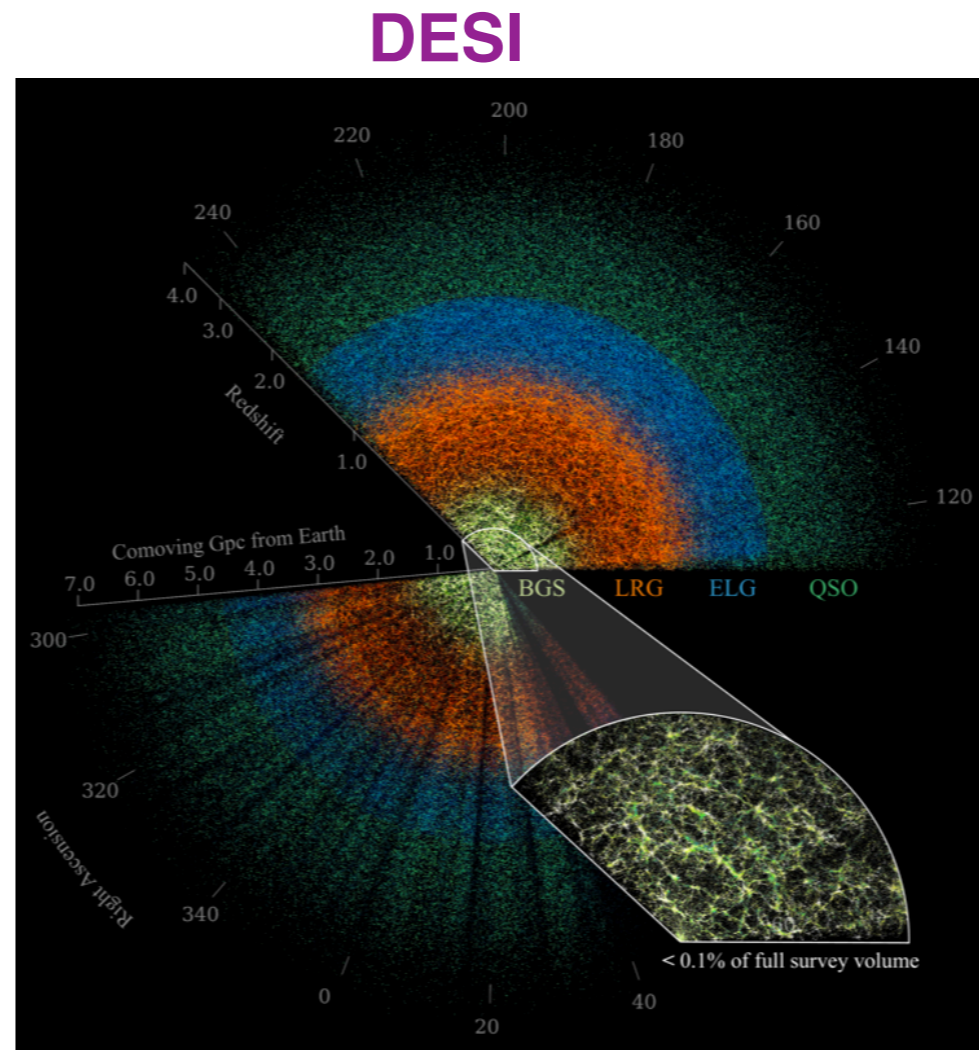




New CMB data

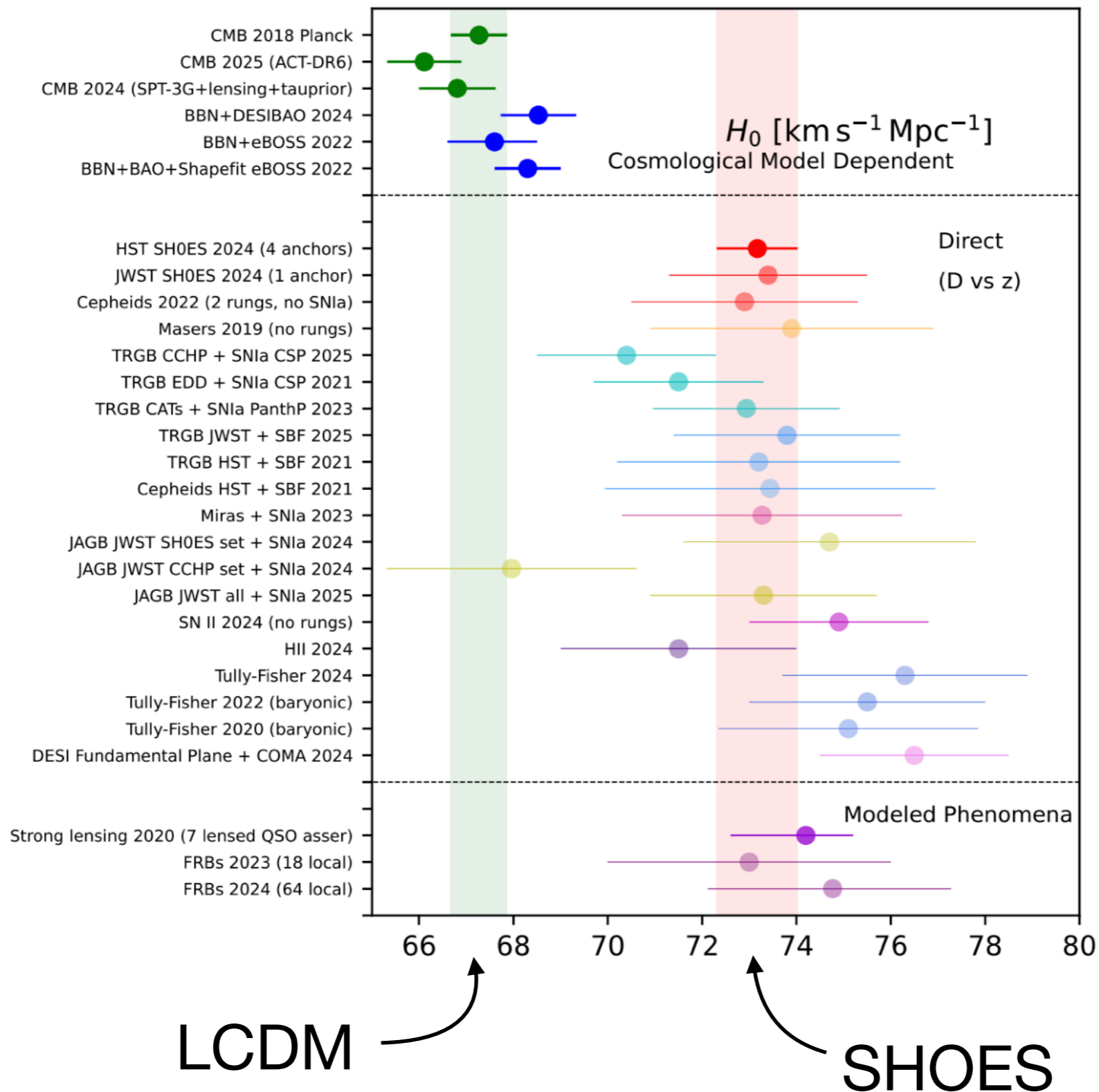


New LSS data



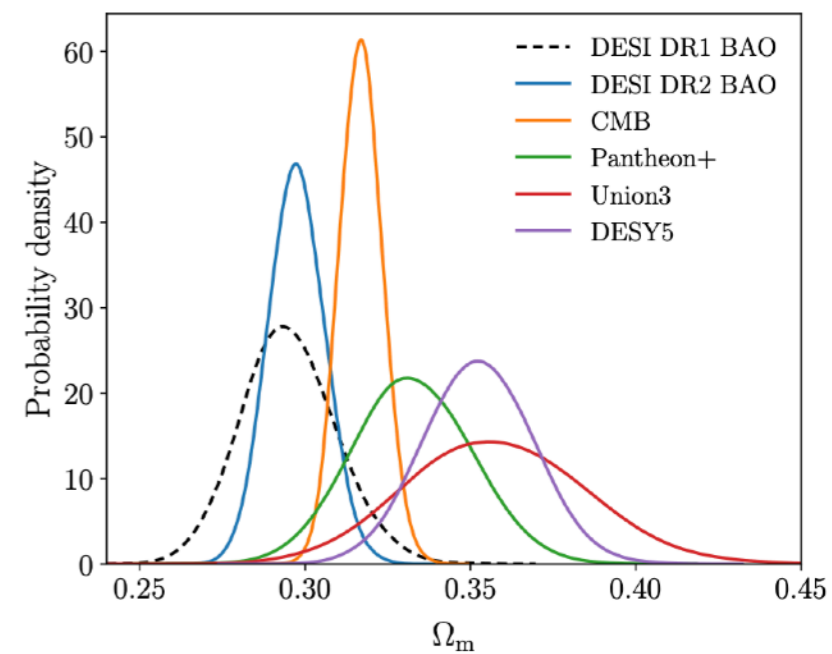
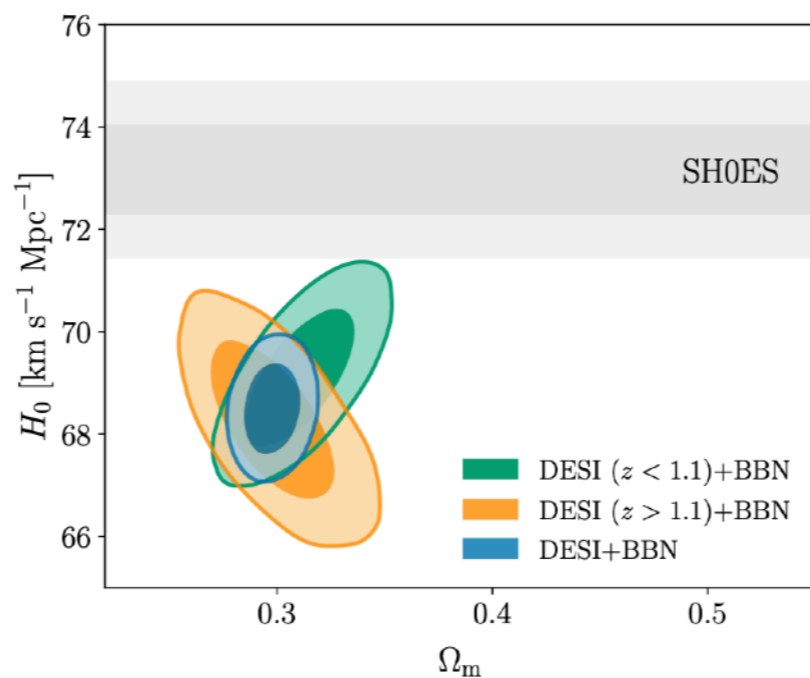
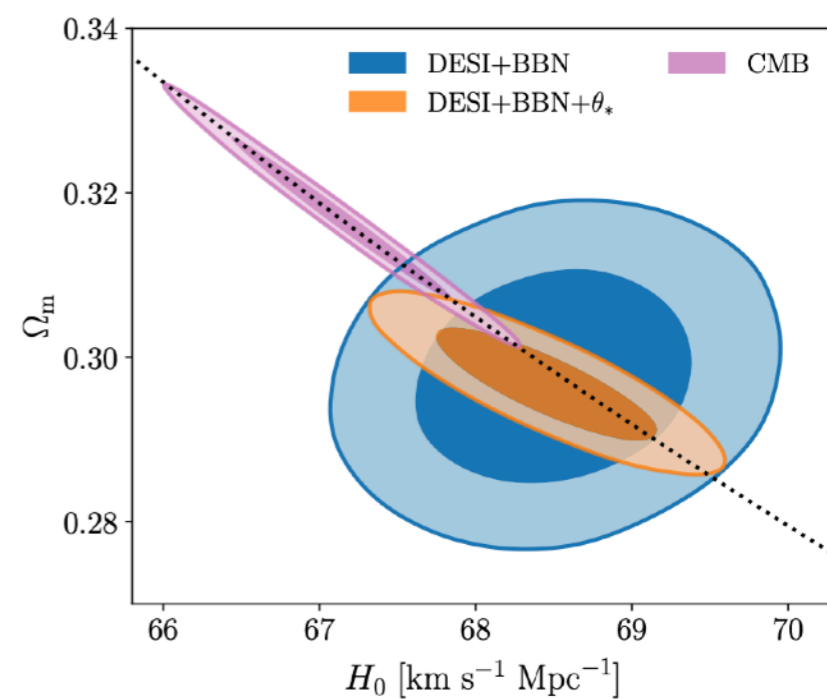
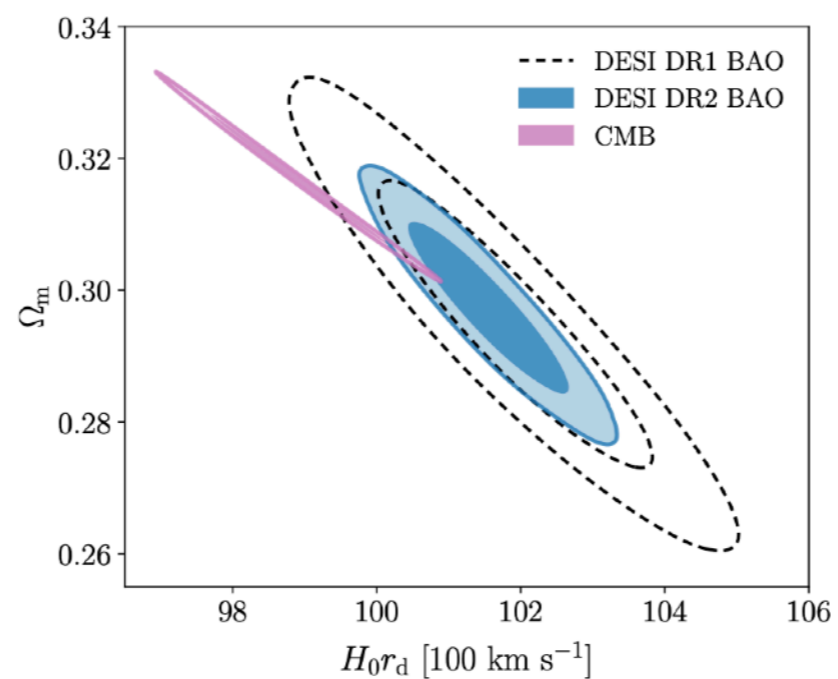
Hubble Tension

Cosmoverse WP — [arXiv:2504.01669]



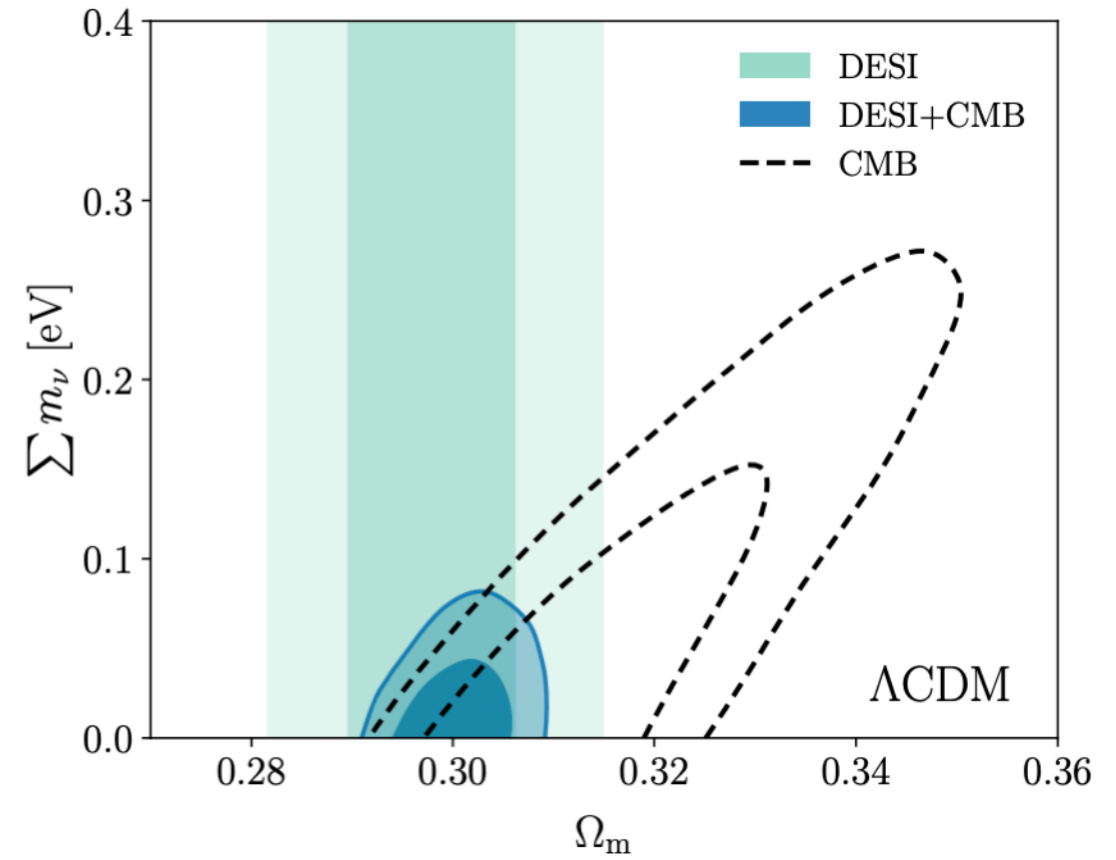
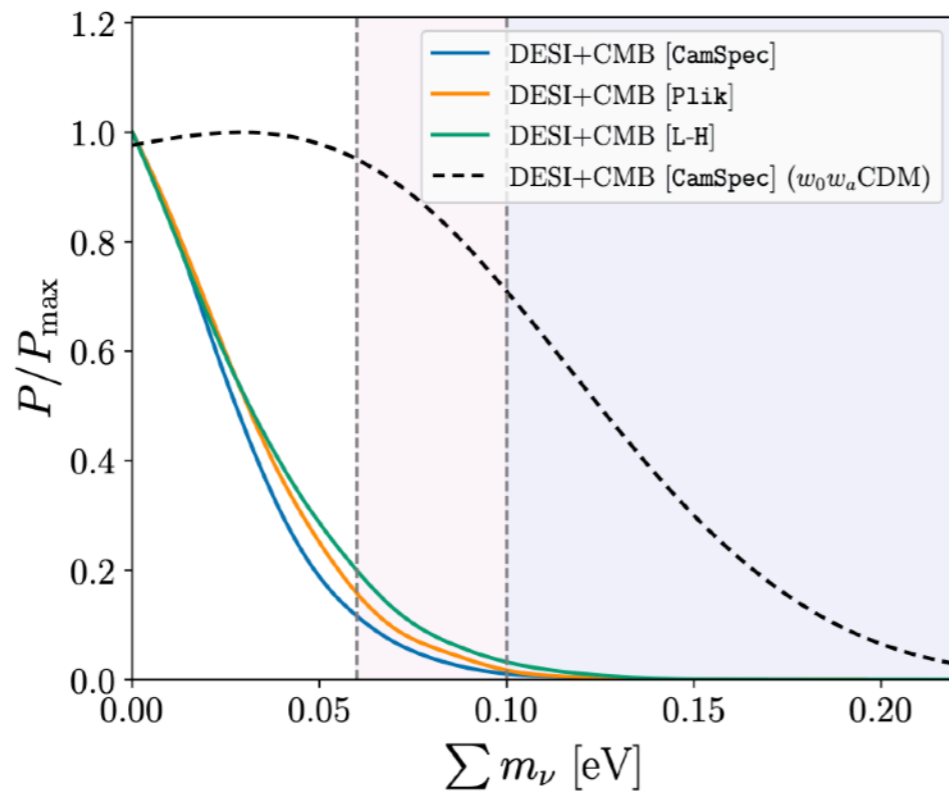
Omegam

DESI 2025 —
[arXiv:2503.14738]



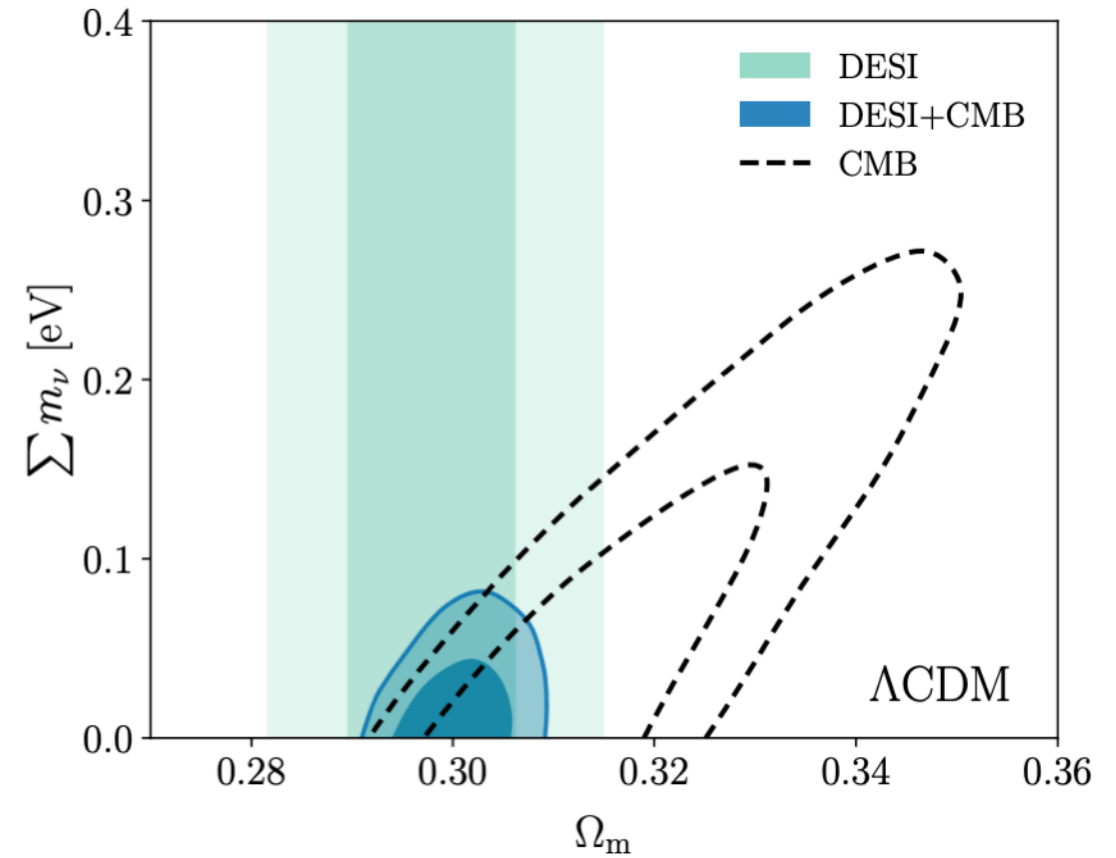
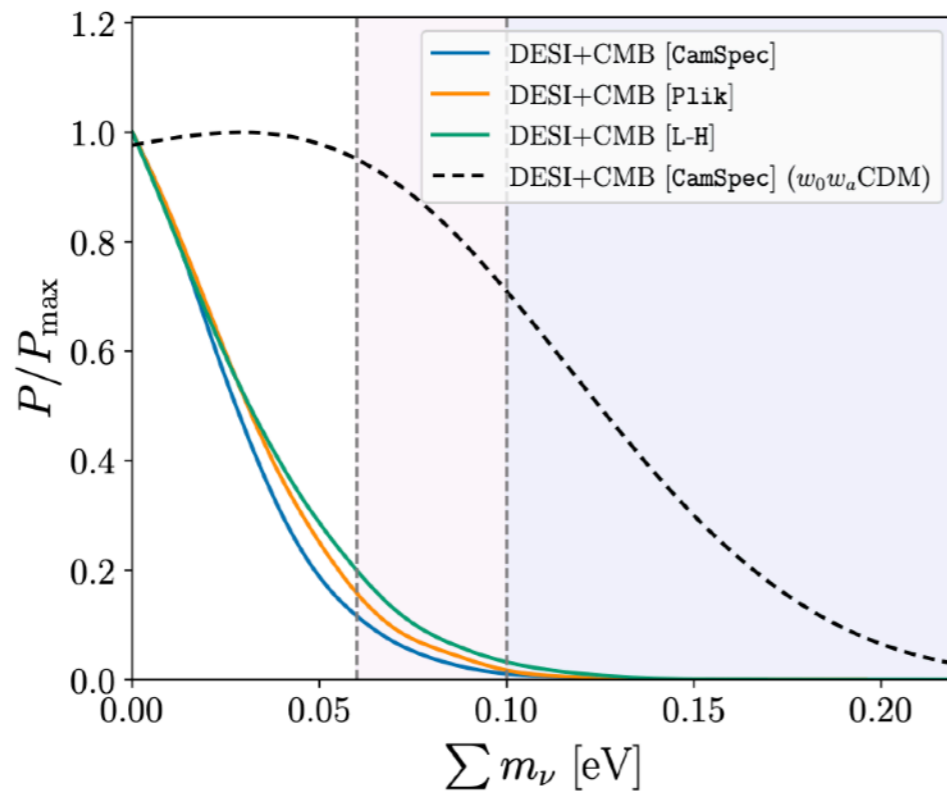
Implications for Neutrino Mass Bounds

DESI 2025 —
[arXiv:2503.14738]

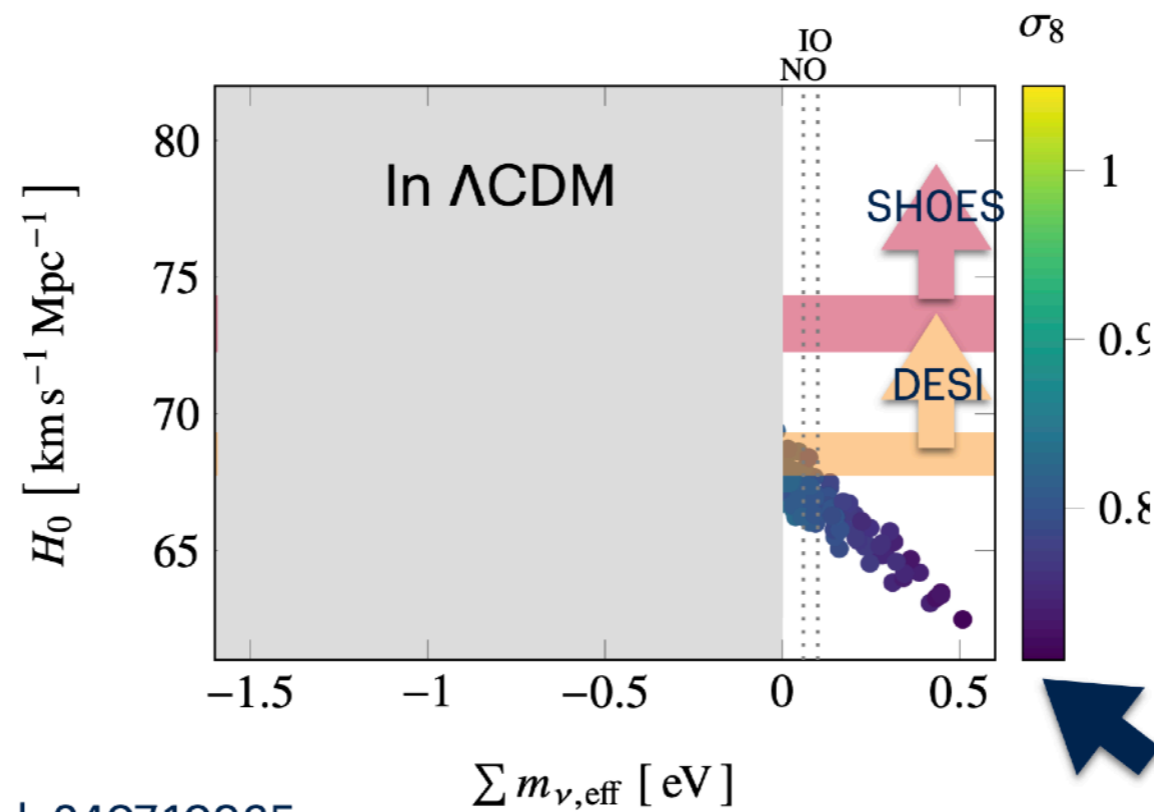


Implications for Neutrino Mass Bounds

DESI 2025 —
[arXiv:2503.14738]



from Julien
Lesgourgues, talk at
Invisibles '25 [link]

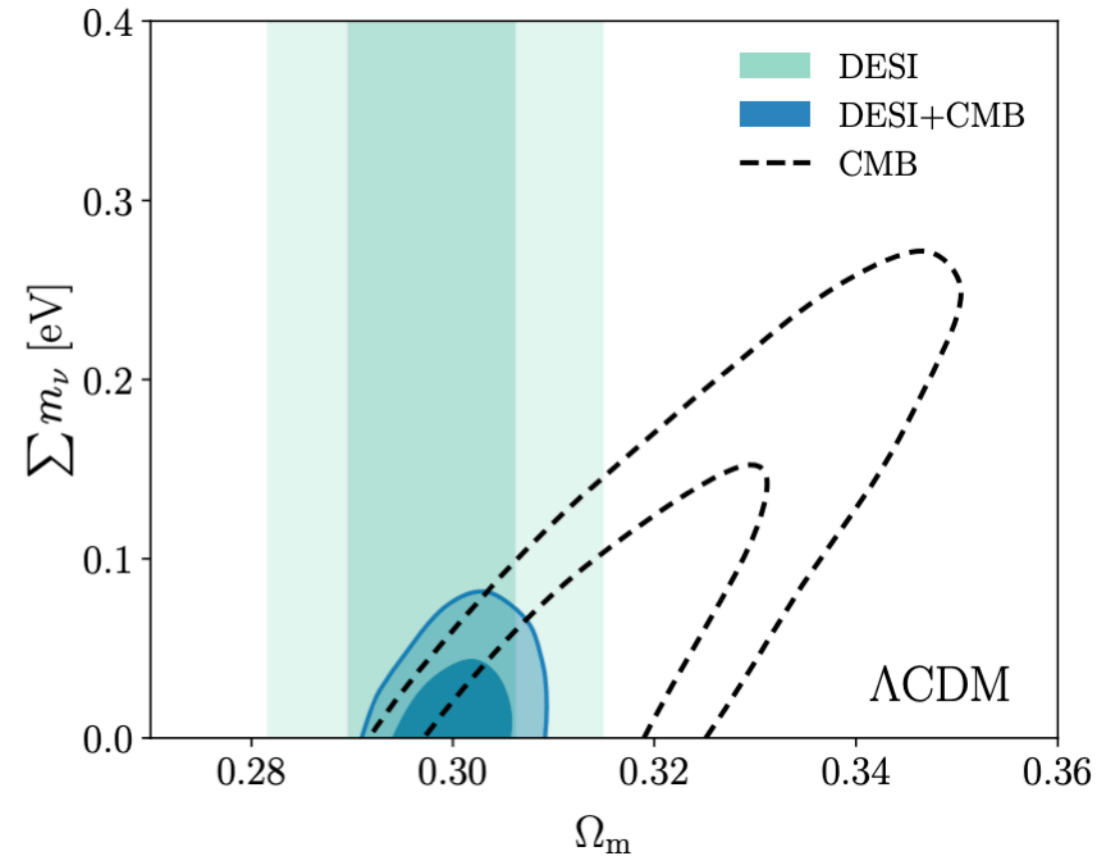
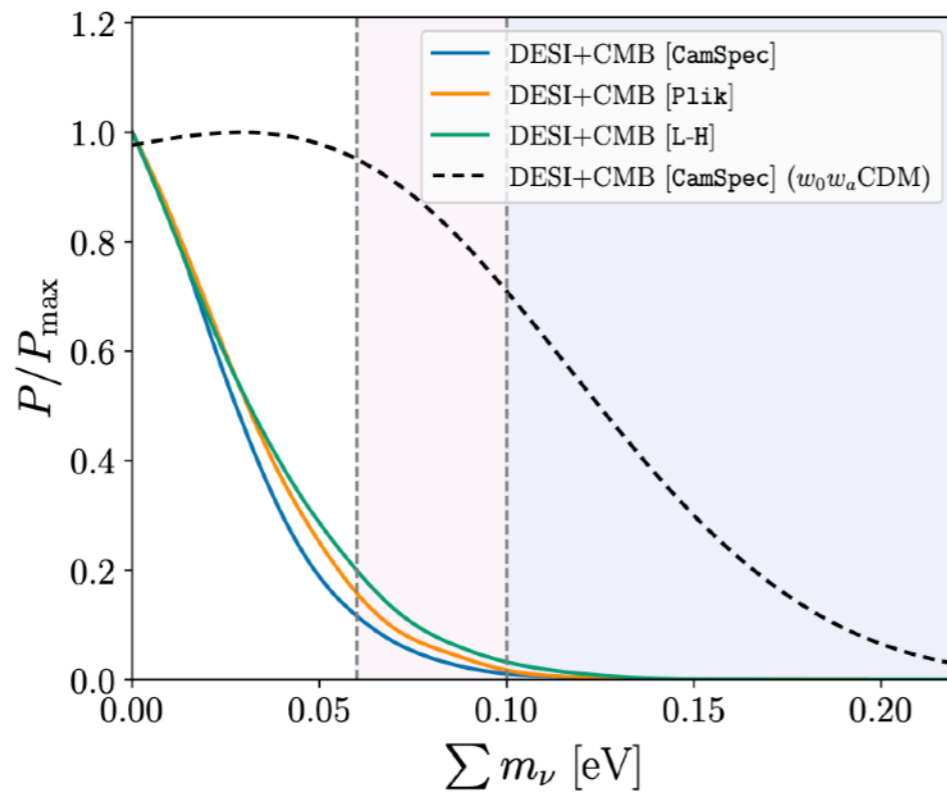


Elbers et al. 2407.10965

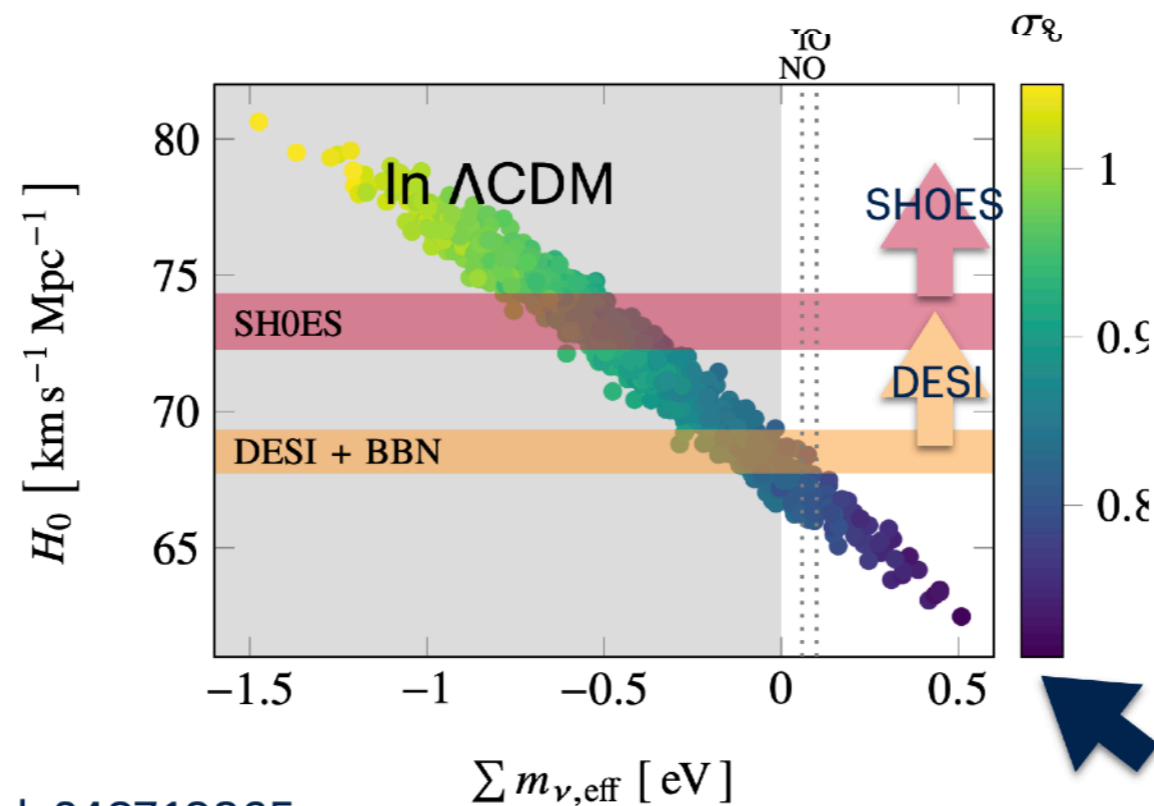
Push from CMB lensing

Implications for Neutrino Mass Bounds

DESI 2025 —
[arXiv:2503.14738]



from Julien
Lesgourgues, talk at
Invisibles '25 [link]

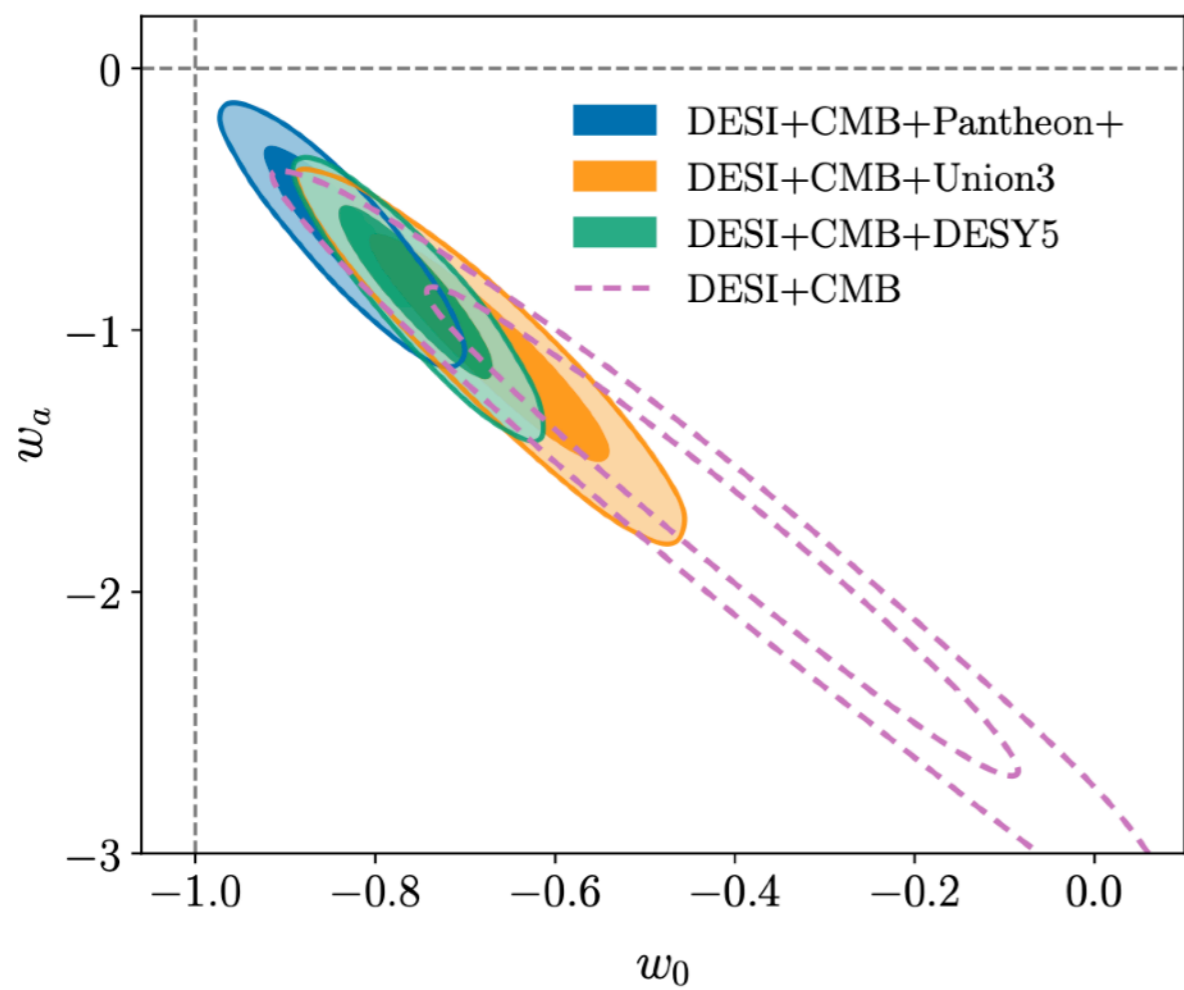


Elbers et al. 2407.10965

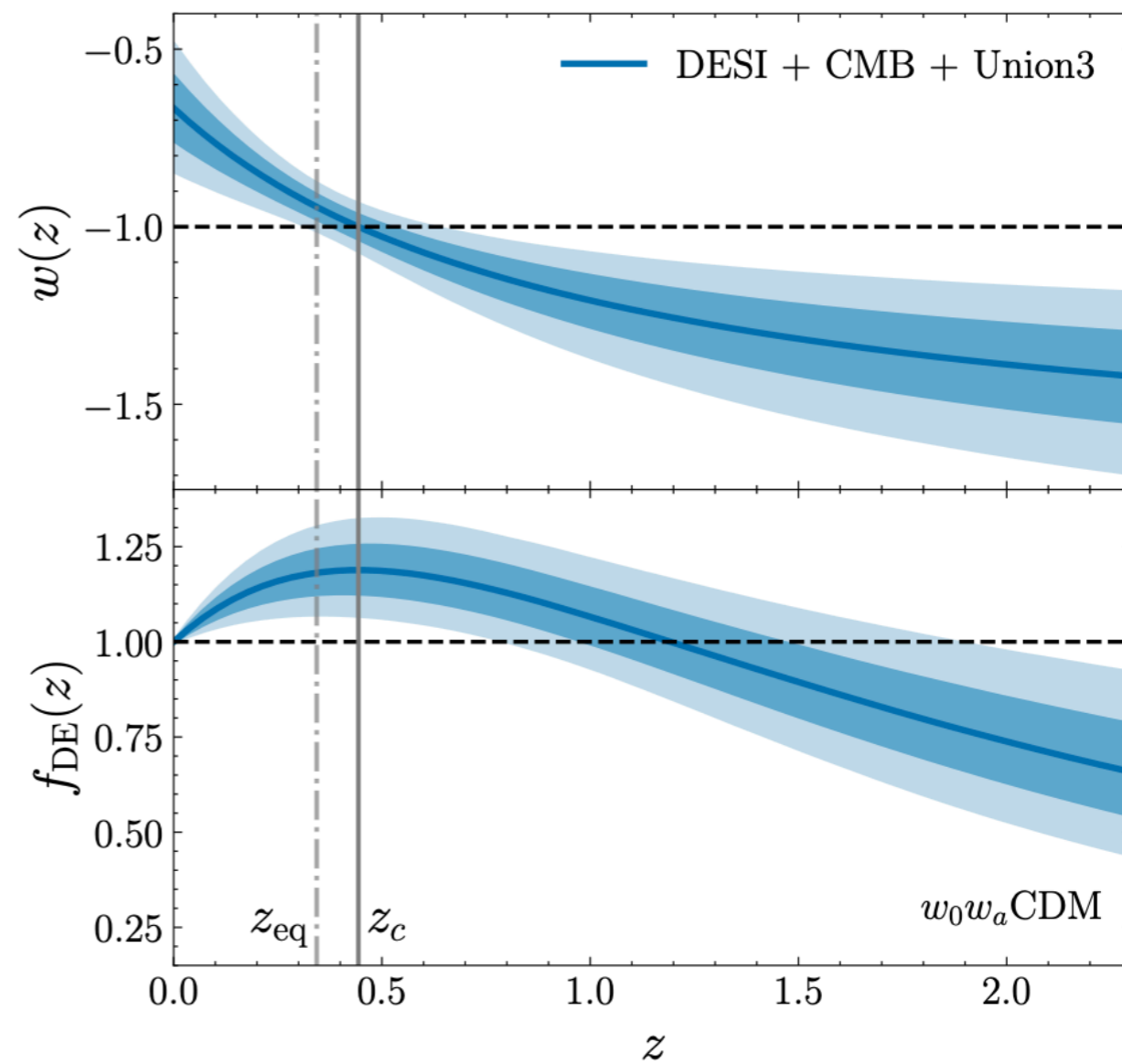
Push from CMB lensing

Dynamical Dark Energy

DESI 2025 —
[arXiv:2503.14738]

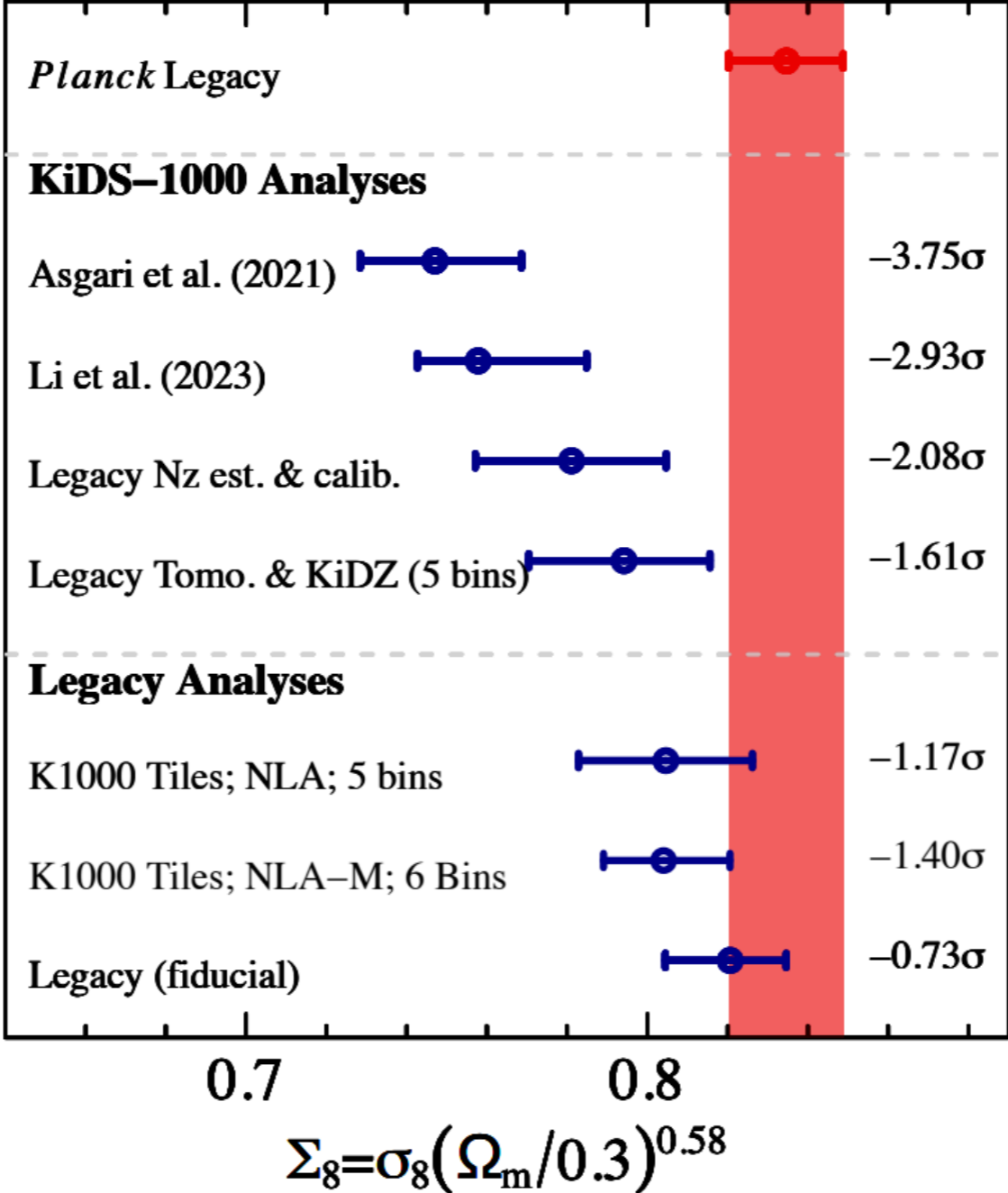


DESI 2025 —
[arXiv:2503.14738]



S8 Tension (which went away)

Angus H. Wright, et al., (kids Legacy) —
[arXiv:2503.19441]



Main tensions

H_0

Ω_m

strong implications for $\sum m_\nu$

Dynamical Dark Energy

S8 : a tension that went away

Some questions

Theory:

- ★ How motivated are the possible solutions to these tensions?
- ★ Is there any model that can simultaneously address these tensions without resulting in other issues?
- ★ Should one consider different mechanisms for each tension?
- ★ What sector of the cosmological model we should scrutinize first? DE, DM, both? another species? neutrinos?

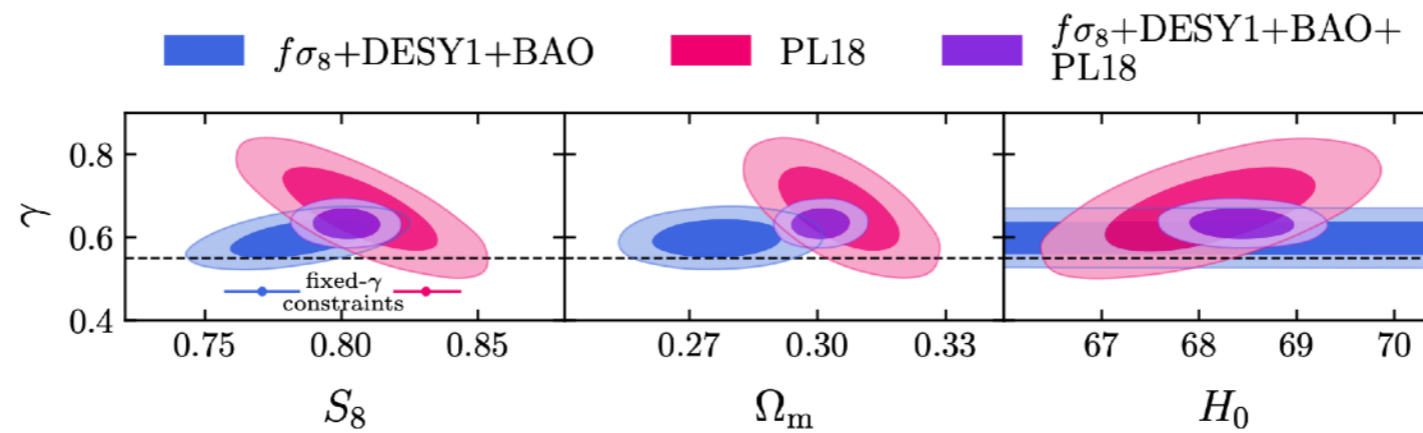
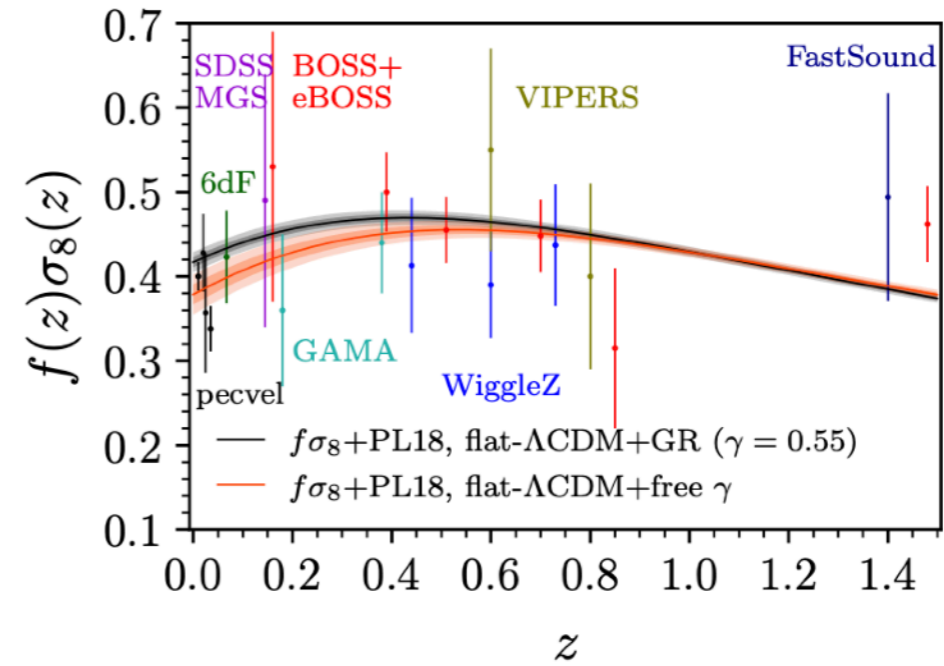
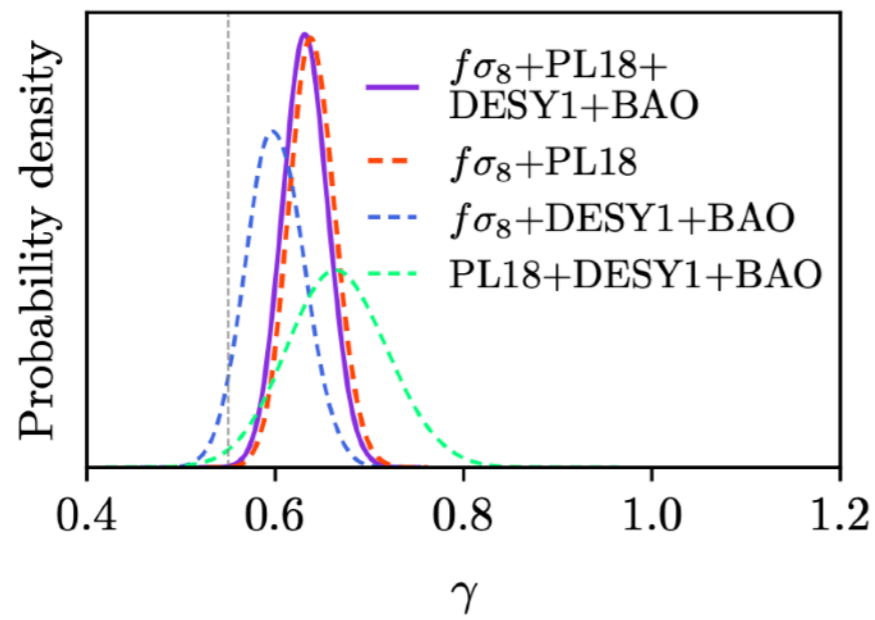
Cosmo Questions:

- ★ Should we disregard any of these tensions?
- ★ What data sets should be triple checked?
- ★ Should the tensions be casted in terms of other cosmological parameters? e.g. τ_{reio} ?
- ★ In this confusing situation, what does it take to claim a discovery?
- ★ How do we distinguish between the various models? What are the most promising observables?
- ★ If DM is involved, how would a direct detection impact our theories?
- ★ What would be the next most important Cosmo data set? Should we prepare in any way for it?

Back up

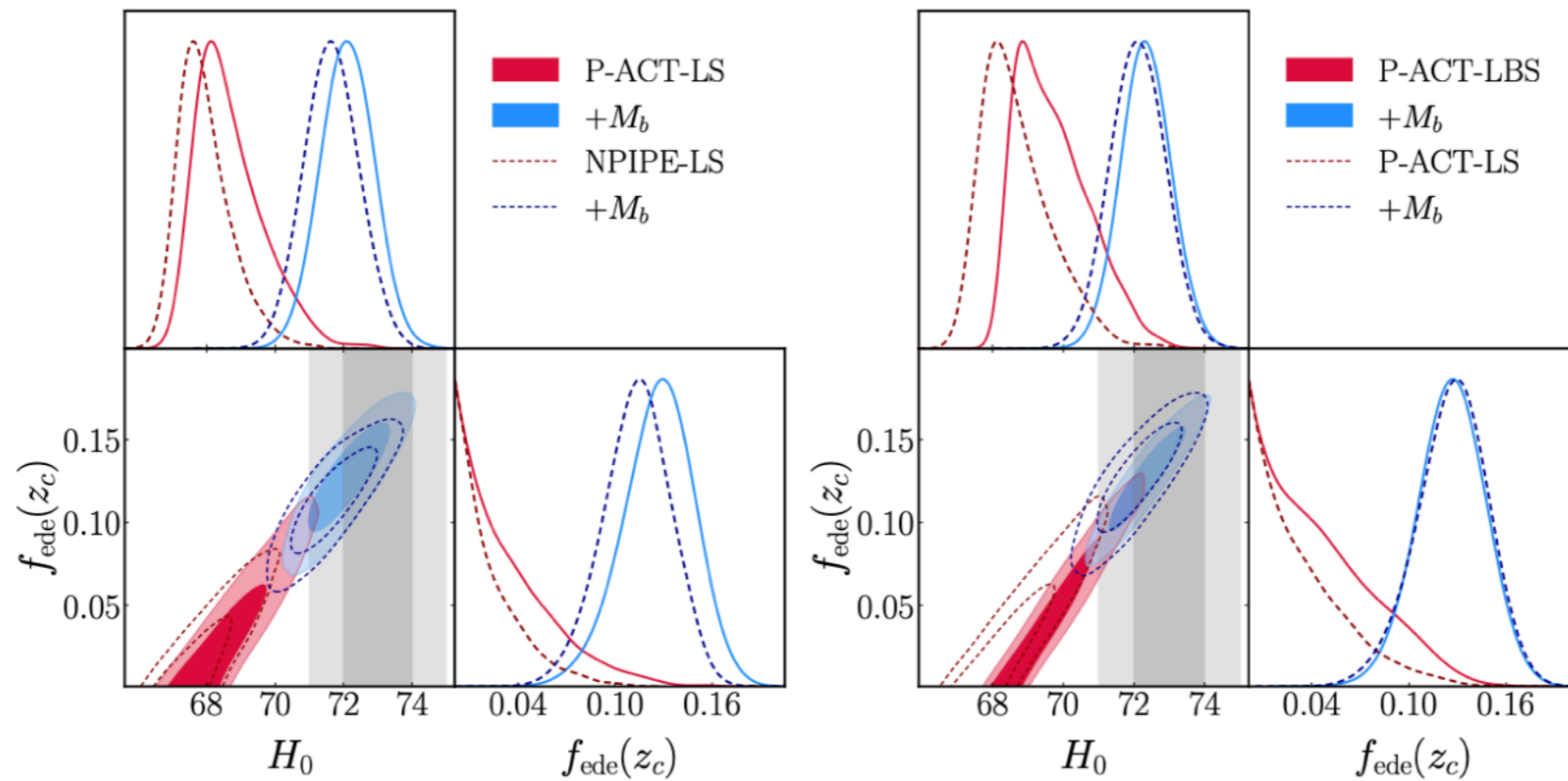
Growth Index

Nguyen et. al —
[arXiv:2302.01331]



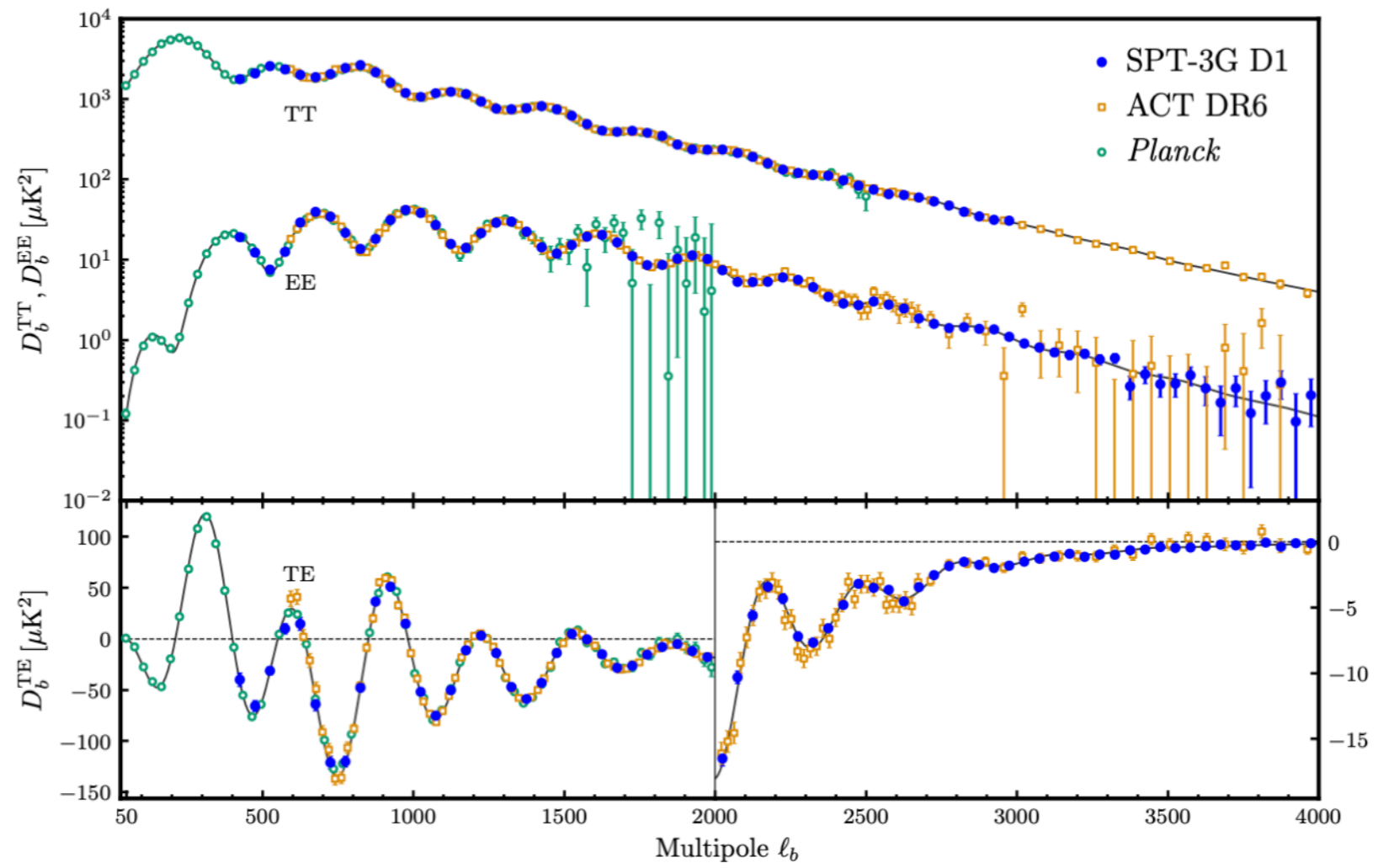
Early Dark Energy

V. Poulin et al. —
[arXiv:2505.08051]



CMB DATA

SPT-3G D1 — [arXiv:2506.20707]



Implications when combining BAO and CMB

SPT-3G D1 — [arXiv:2506.20707]

