

Temperature evolution of majoron in GeV temperature region

Including majoron $L_\mu - L_\tau$ model

- g-2 anomaly
- neutrino mass
- Hubble tension

new particle

$U(1)_{L_\mu - L_\tau}$ gauge boson Z'

majoron ϕ (Nambu-Goldstone boson)

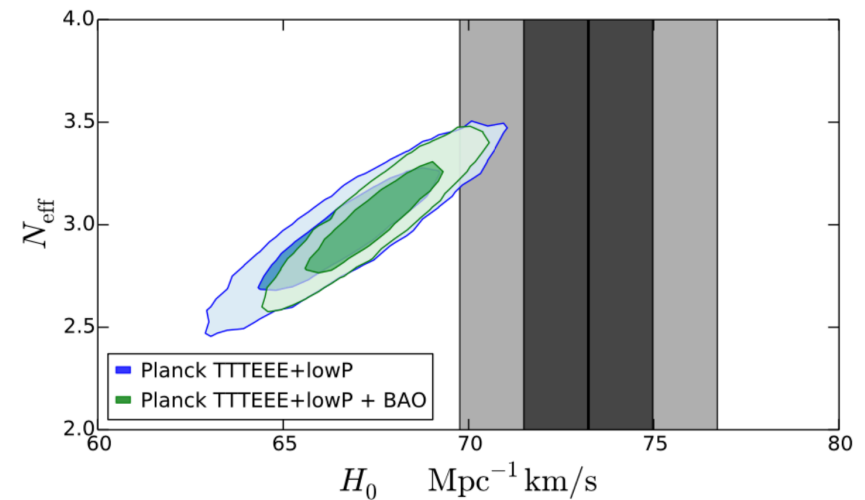


Figure: reference arXiv:1607.05617 [astro-ph.CO]

