Joel Meyers Oct 6, 23

SO / Forecasting

CAMB or CLASS B. code

interfaced w/ SO

WIKI spreadsheet

TO DO: SI dark rad'n ($N_{sterile}$)

Ben

Marilena

related to H tensions

w SI fit (time)

Free streaming vs. non has bigger effect ~~phase~~ is in rad'n dom

~~Damping~~ Damping tail determined by total rad'n density (smallest CMB scales)

Phase shift, wanna resolve as many peaks as possible

They're ~~stronger~~ sharpest in polarization

TE in SO

SO doin small scales → phase shift

BICEP

~~But~~ Best on cosmic birefringence
so is doing in L3 (being done)

TE → better constraints on
isocurvature perts
Planck did some

— Diff generation mechanisms?
Zaro Turok + Moodley + Bucher
did Complete basis for isocurvature perts.
if ∃ B, δ, DM, ν + why TE is constraining

[Axion DM → ~~ISO~~ standard isocurvature
for this case
cobe Isocurv/adiab uncorrelated
Distinct from curvaton model
anticorrelated ?

∃ a mode d in this basis,
that's unconstrained ~~so~~ so far by CMB

$\delta_B = -\delta_{DM}$

But can constrain through Secondaries
Dan Green lensing
KSZ?

SO will measure δT
to v. small scales $l > 4000$
But primary any more
Dominated by KSZ
scattered by free e⁻ w/
line of sight v compared to us