

Is modern cosmology broken?

Eh...kinda?¹

Lauren Thomas (ljaytee)

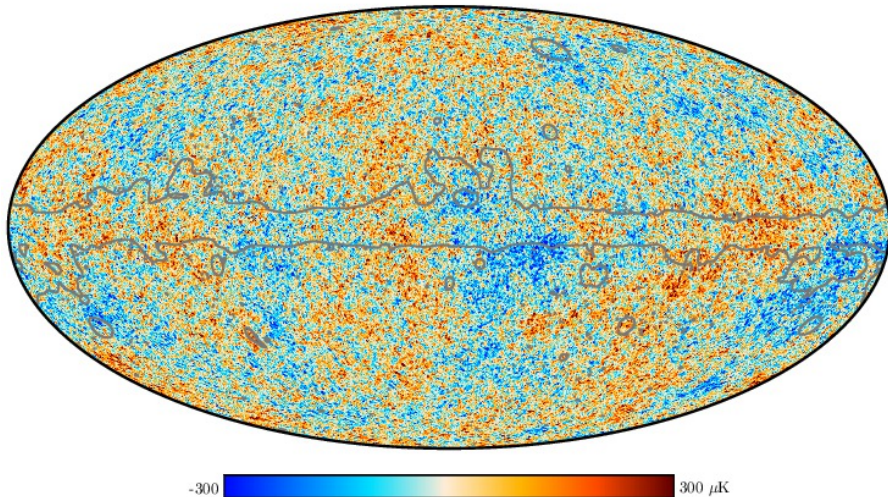
Newline 2023

¹Suck it Betteridge

Hubble tension. What is it? Why should I care?

$$H_0 \approx 70 \text{ km} \cdot \text{s}^{-1} \cdot \text{Mpc}^{-1}.$$

Cosmic Microwave Background Radiation (CMBR)



Cosmic distance ladder



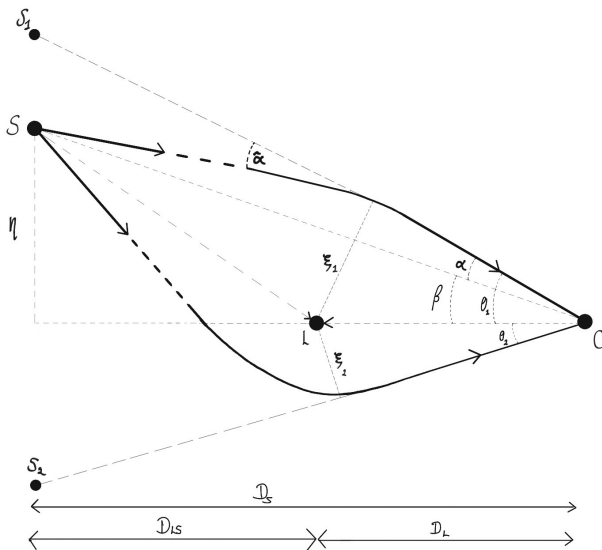
Figure: Artist impression. Not real image. Source:
https://www.esa.int/ESA_Multimedia/Images/2014/09/Artist_s_impression_of_Type_Ia_supernova

Gravitational lensing



Figure: SMACS J0723.3-7327, HST (left), JWST (right)

Geometry of gravitational lenses



Estimates of H_0 in the last 5 years

