

TDCOSMO 2026: Cosmological constraints from strong lensing time delays

○Kenneth Wong¹ (1.University of Tokyo)

Strong gravitational lensing provides an independent method for constraining cosmology through lensed quasars, which can be monitored to measure the "time delay" between the multiple images and constrain the Hubble constant (H_0). This method of measuring H_0 is independent of type Ia supernovae and CMB observations, and may shed light on the H_0 tension between local universe and CMB measurements. The latest analysis from the TDCOSMO project increases the sample size of analyzed lenses to 12 (50% more than the previous 2025 result), and includes updated kinematic constraints from Keck/KCWI observations, improved constraints on line-of-sight effects, and new JWST/NIRSpec imaging for improved lens modeling. This result is maximally conservative with respect to galaxy mass profiles, allowing for the full mass sheet degeneracy. I present the latest constraints on H_0 from TDCOSMO, as well as a roadmap for improved constraints in the near future.