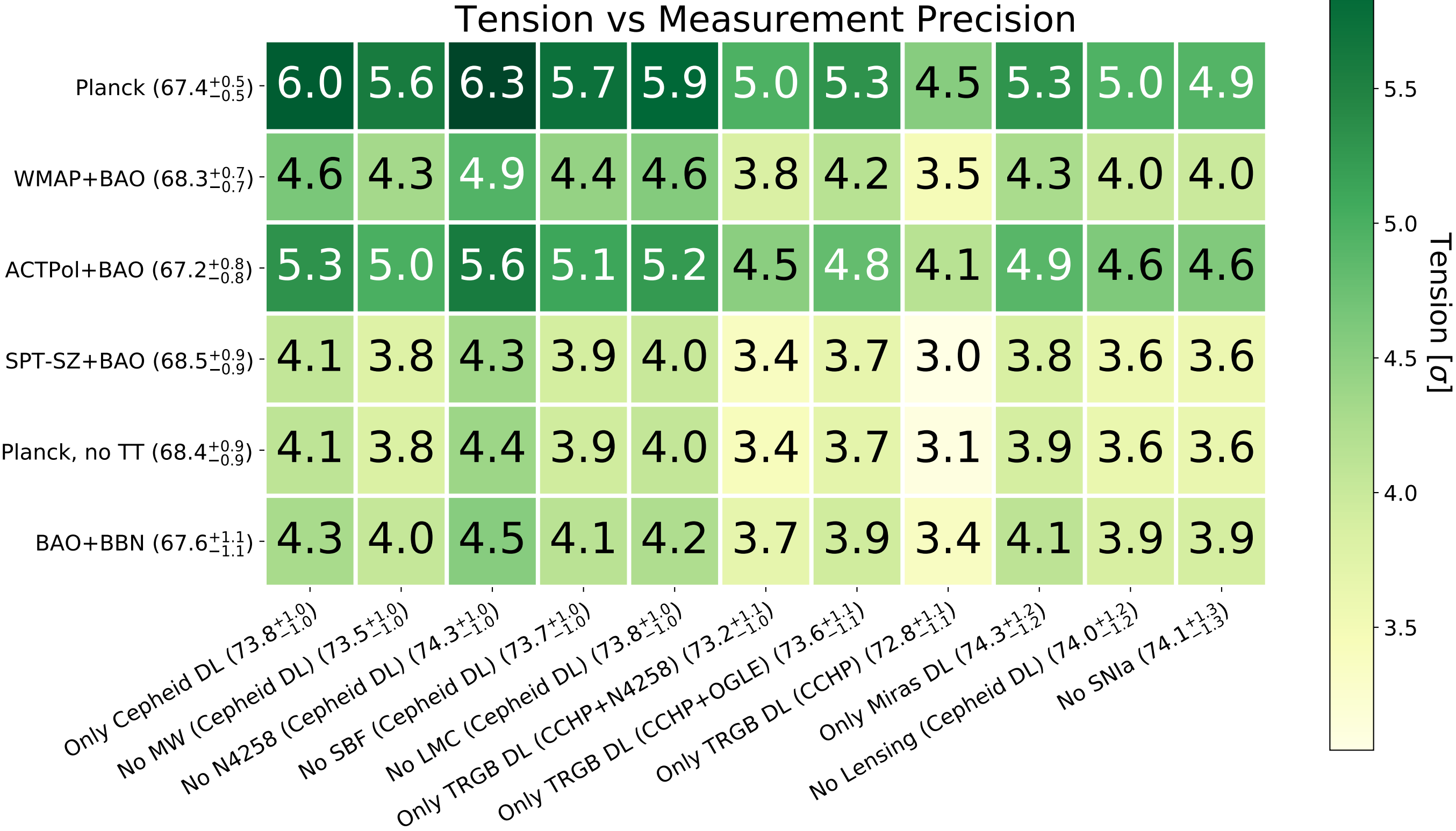


YEAR IN REVIEW

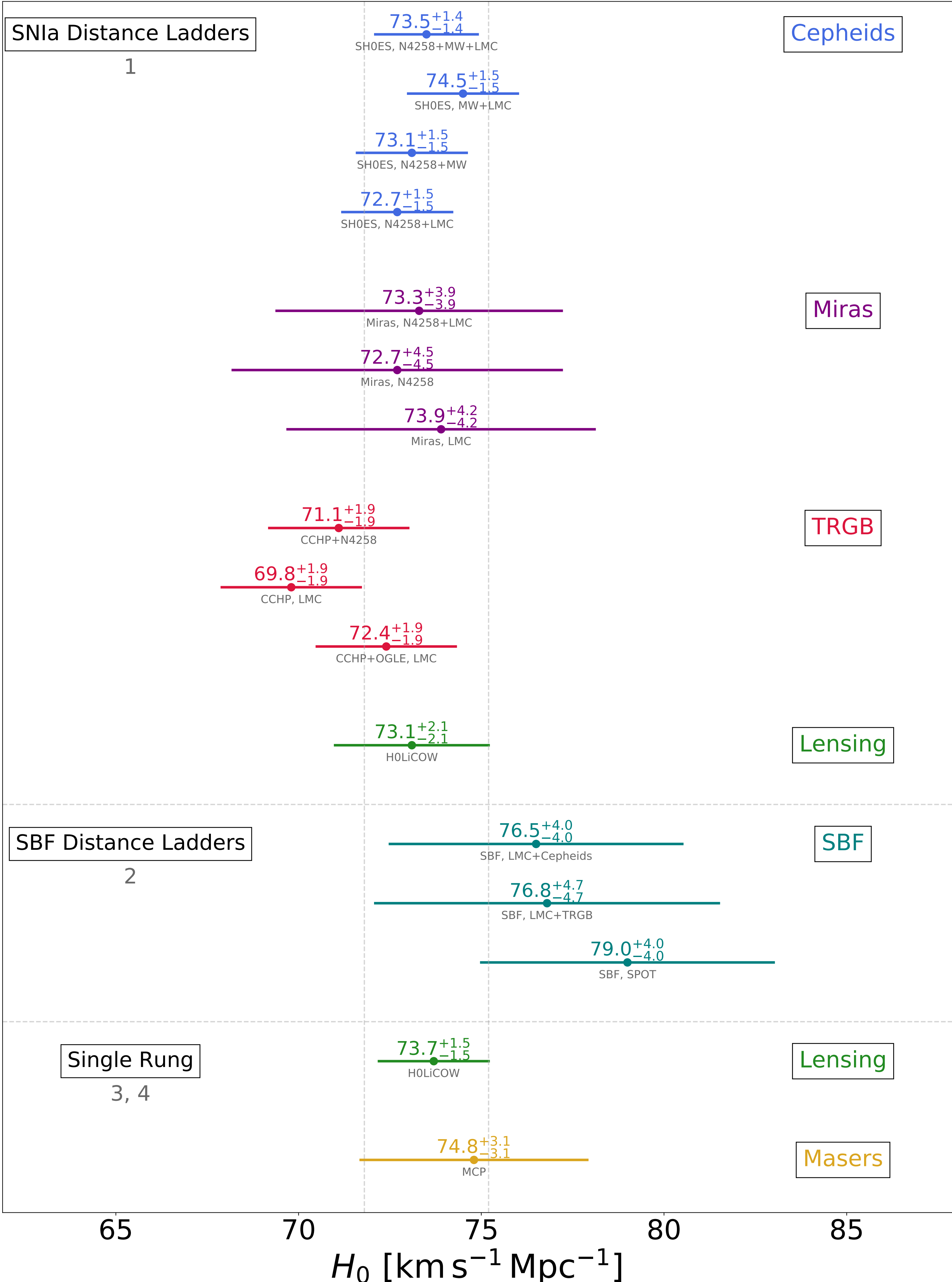
The expansion of the Universe is faster than expected

Adam G. Riess

<https://doi.org/10.1038/s42254-019-0137-0>



Late Universe



Early & Late Universe

Early

67.4^{+0.5}_{-0.5}

Planck

68.4^{+0.9}_{-0.9}

Planck, no TT

67.6^{+1.1}_{-1.1}

BAO+BBN

68.3^{+0.7}_{-0.7}

WMAP+BAO

67.2^{+0.8}_{-0.8}

ACTPol+BAO

68.5^{+0.9}_{-0.9}

SPT-SZ+BAO

No BAO

Planck, no TT

No CMB

No Planck, CMB + BAO

No Planck, CMB + BAO

No Planck, CMB + BAO

Late

=1+2+3+4

73.8^{+1.0}_{-1.0}

Only Cepheid DL

74.3^{+1.2}_{-1.2}

Only Miras DL

72.8^{+1.1}_{-1.1}

Only TRGB DL (CCHP)

73.6^{+1.1}_{-1.1}

" (CCHP+OGLE)

73.2^{+1.1}_{-1.0}

" (CCHP+N4258)

74.1^{+1.3}_{-1.3}

No SNIa

74.0^{+1.2}_{-1.2}

No Lensing (Cepheid DL)

73.8^{+1.0}_{-1.0}

No LMC (")

73.5^{+1.0}_{-1.0}

No MW (")

74.3^{+1.0}_{-1.0}

No N4258 (")

73.7^{+1.0}_{-1.0}

No SBF (")

65

70

75

80

85

H_0 [km s⁻¹ Mpc⁻¹]