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Type: **Invited talk in the parallel session**

Hubble speed from first principles

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We introduce a novel way of measuring H_0 from a combination of independent geometrical datasets, namely Supernovae, Baryon Acoustic Oscillations and Cosmic Chronometers, without the need of calibration nor of the choice of a cosmological model. Our method builds on the distance duality relation which sets the ratio of luminosity and angular diameter distances to a fixed scaling with redshift, for any metric theory of gravity with standard photon propagation. In our analysis of the data we employ Gaussian Process algorithms to obtain constraints that are independent from the underlying cosmological model. We find $H_0 = 69.5 \pm 1.7$ Km/s/Mpc, showing that it is possible to constrain H_0 with an accuracy of 2% with minimal assumptions.

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Session Classification: Status of the H_0 and Σ_8 Tensions: Theoretical Models and Model-Independent Constraints

Track Classification: Cosmic Microwave Background: Status of the H_0 and σ_8 tensions: theoretical models and model-independent constraints