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The H0 Olympics: a fair ranking of proposed models

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Despite the remarkable success of the Λ Cold Dark Matter (Λ CDM) cosmological model, a growing discrepancy has emerged between the value of the Hubble constant H0 measured using the local distance ladder and the value inferred using the cosmic microwave background and galaxy surveys. While a vast array of Λ CDM extensions have been proposed to explain these discordant observations, understanding the (relative) success of these models in resolving the tension has proven difficult – this is a direct consequence of the fact that each model has been subjected to differing, and typically incomplete, compilations of cosmological data. In this talk, I discuss a systematic comparison of seventeen different models which have been proposed to resolve the H0 tension, and explain how to quantify the relative success of each using a series of metrics and a vast array of data combinations.

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