Towards solutions to the Hubble problem beyond Einstein's Gravity

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Discrepant measurements of the Hubble parameter may signal physics beyond the standard cosmological model. I will present different mechanisms to solve the Hubble problem in viable theories beyond General Relativity, testing them against cosmological data and discussing their implications for precision tests of gravity. Among them, a simple model relying on an enhanced strength of gravity at early times reduces the Planck+BAO tension with SH0ES from 4.4 sigma of LCDM to 2.6 sigma (2020 data). While further model building is required to fully resolve the H0 problem, these examples show the wealth of possibilities to solve cosmological tensions beyond Einstein's General Relativity.

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