Fundamental physics in the cosmos: The early, the large and the dark Universe



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Cosmological neutrino weighing with the next generation of surveys

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Cosmological experiments are exceptionally sensitive to the sum of neutrino masses. Future surveys have the potential to provide a precise measurement of the total neutrino mass, or to establish the neutrino hierarchy. To reliably estimate this, it is crucial to properly account for parameter degeneracies, i.e. how measurements improve or deteriorate with different physical models, such as dynamical dark energy or extra relativistic species. With this in mind, I will present sensitivity forecasts for CMB and LSS surveys, and updated bounds from current data.

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