



Prof. Stefano Camera

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Synergic cosmology across the spectrum

Abstract:

Synergy means "the interaction of two or more agents to obtain a combined effect greater than the sum of their separate effects". With this in mind, in this talk I shall present my current lines of research, all focussed on developing novel combinations of astrophysical and cosmological observables to the aim of testing the foundations of the concordance cosmological model. Specifically, I shall discuss how innovative cross-correlations can mitigate the impact of systematic effects, noise and cosmic variance, to the end of studying dark energy and modified gravity models, detecting particle dark matter signatures, and testing of gravity and inflation on the largest cosmic scales. All, with a view on the current and upcoming generation of cosmological experiments and large-scale surveys.

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