

Cosmology with LISA standard sirens

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In this talk I will present cosmological forecasts for LISA using gravitational wave standard sirens. I will show that LISA will constitute a unique cosmological probe able to measure the expansion of the universe from low redshifts ($z \sim 0.01$) up to very large redshifts ($z \sim 7$). This is made possible by the use of different gravitational wave sources as standard sirens: stellar origin black hole binaries (low redshift), extreme mass ratio inspirals (intermediate redshift) and massive black hole binaries (high redshift). I will discuss the methodologies used to constrain the cosmic expansion with LISA and present the latest forecasts for both standard and alternative cosmological models, including modified gravity.