Sixteenth Marcel Grossmann Meeting



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Type: Talk in the parallel session

Averaging cosmological observables in the LSS surveys

Thursday, 8 July 2021 18:10 (20 minutes)

In this talk I will discuss a systematic and rigorous classification of all the possible choices for averaging observables in cosmology. In this regard, the use of the so-called Geodesic Light-cone gauge provides simple expressions as I will show here. These new results will be compared with the recent literature. Moreover, I will discuss their impact on the bias that they can induce in the estimation of statistical properties, such as mean value and dispersion. Finally, the connection between all the presented theoretical prescriptions, the observations and the numerical simulations for the case of the luminosity distance will be discussed.

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Session Classification: Mathematical Problems of Relativistic Physics: Classical and Quantum

Track Classification: Alternative Theories: Mathematical Problems of Relativistic Physics: Classical and Quantum