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Type: Plenary/Parallel talk

E and B-modes in Light-Cone perturbations

Tuesday 23 August 2022 14:50 (20 minutes)

In this talk, I will present a method to extract the Scalar Vector Tensor (SVT) first order perturbations from the Cosmological Perturbations Theory developed in a homogeneous and isotropic Geodesic Light Cone (GLC) background. Due to its adapted light-cone decomposition, the GLC-SVT relation becomes involved, notwithstanding, I will present two different strategies to ease this relation. In the first one I will show how different gauge fixings may simplify these relations, however, at the cost of losing the GLC adaptability to cosmological observables. In the second one I will show how screen projected degrees of freedom have simple formulae when expressed in terms of spin raising and lowering operators, preserving the past light-cone symmetries in terms of well-known physical quantities and its respective E and B modes.

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