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The matter bispectrum in the Lagrangian framework

In this talk we calculate the one-loop correction to the matter bispectrum using Lagrangian Perturbation Theory (LPT). To achieve this we first compute the fastest growing mode of the fourth order solution in LPT, which is as yet missing in the literature. Then, we construct a general expression for the bispectrum in the LPT framework and perform a loop expansion. Resummation techniques are then applied. Finally, we compare our results to those from N-body simulations, for both Gaussian and non-Gaussian initial conditions.

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