

Poster Title: Modified celestial amplitude in Einstein gravity

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Poster abstract:

Celestial amplitudes are the conformal correlation functions on celestial sphere that we get by Mellin transformation of the massless scattering amplitudes in four-dimensional Minkowski spacetime. Celestial amplitudes corresponding to graviton MHV amplitudes in Einstein gravity are divergent. We define modified celestial amplitudes to resolve this issue of divergence and find the corresponding amplitudes for gluon and graviton MHV amplitudes. These modified amplitudes are correlators on the null infinity and not on celestial sphere like celestial amplitudes. We also see that the conformal soft factorisation studied recently in the literature works for these amplitudes as well, both for gluons and gravitons.

Reference work: S. Banerjee, S. Ghosh, P. Pandey and A. P. Saha,
"Modified celestial amplitude in Einstein gravity,"
arXiv: 1909.03075 [hep-th].