

A Carrollian Perspective on Celestial Holography  
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*Abstract*

We propose a holographic description of gravity in 4d asymptotically flat spacetime in terms of a 3d sourced conformal Carrollian field theory. The external sources encode the leaks of gravitational radiation at null infinity. The Ward identities of this theory are shown to reproduce those of the 2d celestial CFT after relating Carrollian to celestial operators. This suggests a new set of interplays between gravity in asymptotically flat spacetime, sourced conformal Carrollian field theory and celestial CFT.

Based on: <https://arxiv.org/abs/2202.04702>