

Abstract

After a review of symmetries and classical solutions involved in the AdS3/CFT2 correspondence, we apply a similar analysis to asymptotically flat spacetimes at null infinity in 3 and 4 dimensions. In the spirit of two dimensional conformal field theory, the symmetry algebra of asymptotically flat spacetimes at null infinity in 4 dimensions is taken to be the semi-direct sum of supertranslations with infinitesimal local conformal transformations and not, as usually done, with the Lorentz algebra. As a first application, we derive how the symmetry algebra is realized on solution space. In particular, we work out the behavior of Bondi's news tensor, mass and angular momentum aspects under local conformal transformations.