

Abstract

I will first review the BMS algebra and the phase space of vacuum Einstein gravity in 3 dimensions. I will show that spacetimes with a supertranslation field describe a defect hidden behind a supertranslation horizon which is characterized by its superrotation charges. Such spacetimes can be generated by a finite supertranslation diffeomorphism whose properties will be described. I will then explain in which sense three dimensional spacetimes with a supertranslation field are toy models of the four dimensional final state of gravitational collapse.