Charles Marteau, CPHT, École Polytechnique, Paris

Asymptotically flat holography and Carrollian fluids

The fluid-gravity correspondence in AdS-like spacetimes works as follows: for every four-dimensional Einstein spacetime with negative cosmological constant (bulk) there exist a dual solution of the relativistic fluid equation on its conformal boundary. I will present how the zero-cosmological constant limit corresponds to the zero-speed of light limit on the boundary (Carrollian limit). The resulting asymptotically flat spacetime will now be dual to a Carrollian fluid living on its null infinity. I will also discuss the reconstruction of asymptotically flat spacetimes from boundary datas and the Carrollian symmetries.