ID de Contribution: **30**   Type: **Non spécifié**

Black hole perturbations from Liouville correlators

mardi 28 juin 2022 10:30 (20 minutes)

Reversing the logic of the bootstrap approach in Liouville CFT we explicitly compute the connection formulae for degenerate conformal blocks. In the semiclassical limit of the theory, this amounts to solving the connection problem of Fuchsian ODEs. Generalizing to irregular insertions we solve as well for various confluences. Concentrating on the Heun equations, we can solve the wave equations of a large class of gravitational backgrounds. Indeed, when the wave equation of a black hole or a microstate is separable, it often reduces to Heun equations, and exact connection formulae give access to several quantities. We consider a 4d Kerr black hole and an AdS5 spherically symmetric black hole and compute relevant objects. Crucially, everything is computed in terms of combinatorial objects exploiting the AGT duality.

Orateur: IOSSA, Cristoforo (SISSA)