

Aspects of higher spin black holes

Friday, August 26, 2016 11:00 AM (1 hour)

We discuss various aspects of three-dimensional higher spin black holes, in the context of the AdS₃/CFT₂ correspondence. In particular, we describe how to exploit the Chern-Simons formulation of higher spin theories in AdS₃ in order to derive properties of 2d CFTs with extended symmetry algebras, in the semiclassical (large central charge) limit. We will mainly focus on 2d CFTs with W-symmetry, and comment on how to derive their thermodynamic and modular transformation properties, entanglement entropy, supersymmetry and BPS bounds, by studying black hole solutions in the dual Chern-Simons theories.

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