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# CONICAL SPACES IN HIGHER SPIN GRAVITY

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## Abstract

In  $2 + 1$  dimensions, AdS gravity coupled to higher spins has an elegant description as an  $SL(N)$  Chern-Simons gauge theory. I will consider conical defect solutions in this theory and argue that (for  $N \geq 4$ ) there are special values of the deficit angle for which these geometries are actually smooth configurations of the gauge theory. I will also discuss the role of these configurations in the proposed holographic duality with  $W_N$  minimal model CFTs. In particular, I will argue that the spectrum of smooth  $SL(N, \mathbb{C})$  solutions matches exactly with that of the so-called light primaries in the minimal model  $W_N$  CFTs at finite  $N$  and large central charge. I will also describe some related work in progress.

**Date :** Friday, May 11, 2012

**Time:** 14:00

**Place:** IMBM Seminar Room, Boğaziçi University South Campus