



COLLOQUIUM



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Thermodynamics of BTZ black holes via quantum tunnelling

Abstract

This talk focuses on the Banados-Teitelboim-Zanelli (BTZ) solution which represents a black hole in (2+1) dimensions. In contrast to black holes in (3+1) dimensions BTZ black holes require a negative cosmological constant in order to exist. In this talk we discuss the thermodynamics of BTZ black holes -- their Hawking temperature and Bekenstein entropy. It is shown how these thermodynamic quantities can be obtained using the tunnelling approach to Hawking radiation and it is shown how one can formulate generalized laws of thermodynamics in terms in BTZ black holes.

3-4 p.m., Friday, Oct. 28th, 2011 McLane Hall 162
Refreshments will be served. All welcome!