

Abstract Submitted
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On the Near Horizon Canonical Quantum Microstates from AdS_2/CFT_1 and Conformal Weyl Gravity LEO RODRIGUEZ, SHANSHAN RODRIGUEZ, Grinnell College — We compute the full asymptotic symmetry group of black holes belonging to the same equivalence class of solutions within the Conformal Weyl Gravity formalism. We do this within an AdS_2/CFT_1 correspondence and by performing a Robinson-Wilczek two dimensional reduction, thus enabling the construction of an effective quantum theory of the remaining field content. The resulting energy momentum tensors generate asymptotic Virasoro algebras, to s -wave, with calculable central extensions. These centers in conjunction with their proper regularized lowest Virasoro eigen-modes yield the Bekenstein-Hawking black hole entropy via the statistical Cardy formula. We also analyze quantum holomorphic fluxes of the dual CFTs in the near horizon, giving rise to finite Hawking temperatures weighted by the central charges of the respective black hole spacetimes. We conclude with a discussion and outlook for future work.

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