Title:	Space-time duality of the BTZ black hole
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Abstract:	We briefly review conformal field theory in two dimensions and introduce the con- cept of compactification. Following which, we present explicit constructions of CFT partition functions and verify their world-sheet modular invariance properties. We stress on the encountered space-time modular invariance properties of the toroidal partition function and its connections to Buscher duality. The torus parameters of Euclidean BTZ blackhole and thermal AdS 3 are uncovered using AdS/CFT ideas. The results of this analysis are used to propose a generalised structure for the bulk partition functions of these geometries. We use these partition functions to probe for possible space-time dualities.
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