Turkish Journal of Physics

The Decay of a Black Hole as a Quantum Dissipative Process

Carl WOLF
Department of Physics, North Adams State College,
North Adams, MA (01247) USA

Abstract: By considering the decay of a black hole as a result of the interaction of a quantum system with a dissipative vacuum, or in terms of string theory, the interaction of localized string modes with non-local string modes, we demonstrate how the single parameter representing dissipation can be calculated in terms of known fundamental constants. In view of the uncertainty embodied in all the present theories of black hole decay it is suggested that the approach of this note might provide fresh insight to the problem of black hole decay. P.A.C.S.: 98.80-Dr Cosmology