

In this Talk, I Present the Field dynamics in Tortoise Coordinate Where the Equation of Motion of a Scalar Can be Written as Schrodinger-like form. I Obtain a General form for Effective Potential by Finding the Schrodinger Equation for Scalar and Spinor Fields and Study Its Global Behavior in Some Black Hole backgrounds in three dimension such as BTZ black holes,new type black holes and Black Holes with No Horizon. Especially, we Study the Asymptotic Behavior of Potential at Infinity, Horizons and Origin and Find That Its Asymptotic in BTZ and new type solution is completely different from that of vanishing horizon solution. In Fact, Potential for Vanishing Horizon Goes to a Fixed Quantity at Infinity, While in BTZ and New Type Black Hole We Have an Infinite Barrier.