

## **The effect of the gravity of a black hole on the acceleration of energetic cosmic particles**

Quantum mechanical particles will be affected by the gravitational field of black holes and the curvature of space. In general, by writing the structure of the desired Hilbert space near a black hole, the physical and quantum mechanical behavior of a fundamental particle can be investigated. For example, we will indicate the wave packet motion of a particle and its modified standard quantum equation in the gravitational field of a black hole.

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