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About some opportunities of driving of a particle in a black hole

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It is supposed that in a black hole unlike the routine world of coordinate and time are constants, and an impulse and energy are variables. In work some possibilities of driving of a particle of matter in these conditions are considered. For their consideration the principle of ab inititio but not traditional minimization of expression of action through a Lagrangian is used. In this work at first possible processes, connected to this driving are constructed and then Planck's quantum is used for drawing up equations of motion. Matter density in a black hole is supposed locally a constant. Radius vector of a particle is necessary to constants as well as its time. Only its impulse and energy change. The picture, opposite to driving of a particle in the routine world turns out. Two conditions of a particle characterized by two pairs of parameters, time and energy (t, E) and also a vector of a position and an impulse (r, p), are considered. If in the routine world at the uniform and rectilinear motion of t and r strive for infinity at constancy of E and p, then in a black hole energy and an impulse do not go beyond its limits. Therefore they or are tied to a point of t, r and alternate the phases, or oscillate concerning it in the presence of the reflecting force, for example, caused by a density gradient in space (E, p). Vectors of r and p rely collinear. Equations of motion are presented in finite differences. Charts of driving at the same time form a closed circuit. Quantization of driving is made on state variables. Thus, it turns out that the routine world and the world of a black hole somewhat dual each other. Issues of streams of energy and an impulse are discussed. Further consideration and quantization of more difficult movements of a particle in a black hole, including rotation or its analog is supposed.

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