

**8. On the subject of Hawking radiation.**

Hawking radiation can be explained in the framework of the new bosonic mechanism using the approach outlined in Appendix A5, paragraph 2.1. Fig. 7, which outlines the existence of barrier - b.h.

Fig. 18 bellow depicts the mechanism of changing effective photon mass (ref. Appendix C, paragraph 1.3, item 1.2) as a result of the renormalization on the barrier-b.h. (ref. note: Appendix A5, paragraph 3).

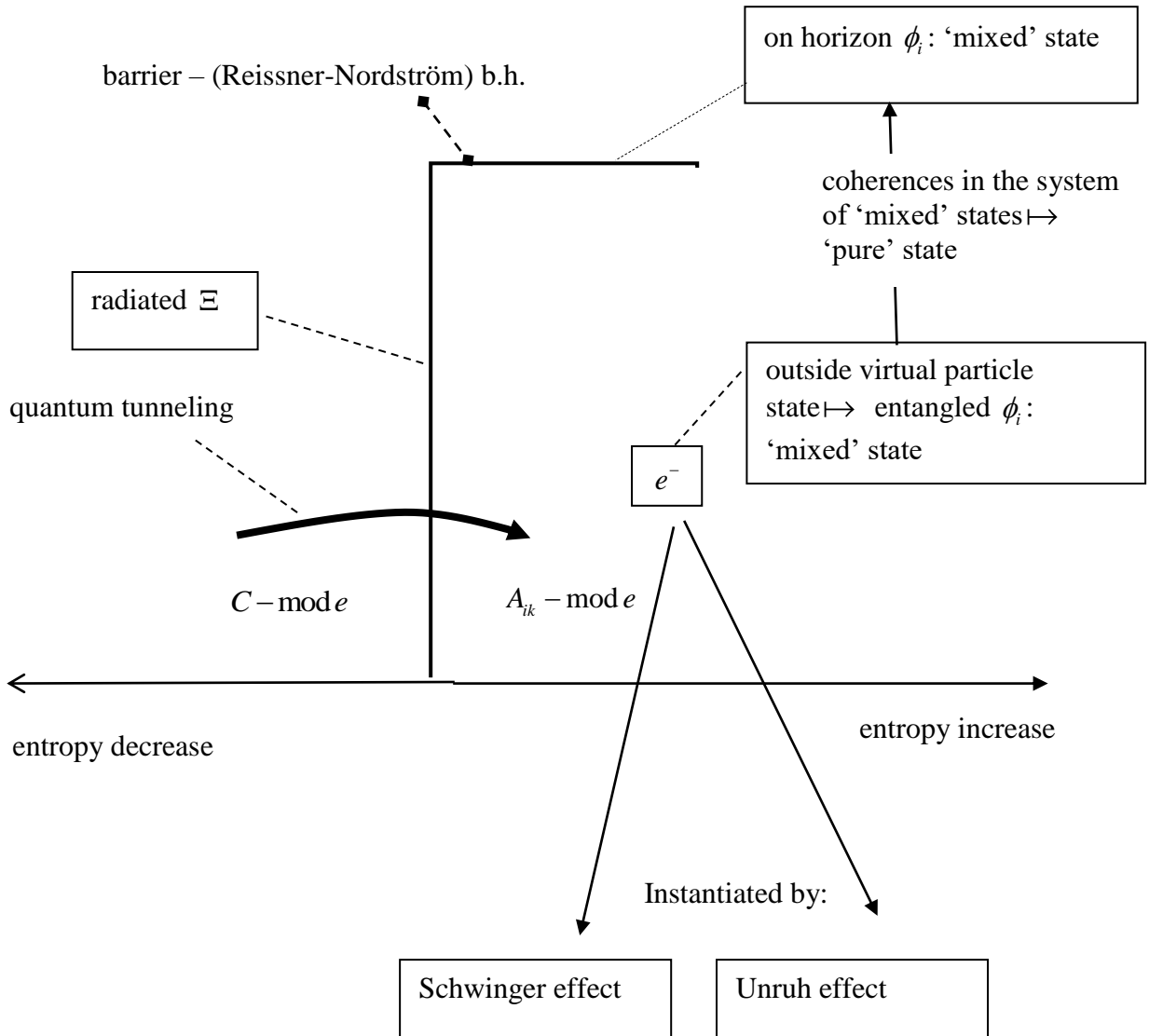


Fig. 18 Renormalization of photon mass on barrier-b.h..

Dark matter (particle), which is charged b.h. radiates  $\Xi$  (dark boson, which is a quant of dark field and a gauge boson of interaction between particles of dark matter).

Quantum tunneling for dark boson results in appearance of virtual  $e^-$  (Dirac sea) instantiated either by Schwinger or Unruh effects, which corresponds to entangled photon  $\phi_i$ .