Physics > General Physics

On Thermal Radiation of Black Holes

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We calculate intensity of thermal radiation (via Hawking effect) and evaporation time of a stationary nonrotating black hole using Kirchhoff's law and the electrodynamic membrane paradigm. It is shown that both quantities significantly depend on the relative thickness of membrane and real part of its static dielectric permittivity.

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Subjects: **General Physics (physics.gen-ph)**; General Relativity and Quantum

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