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The Hawking-Unruh Effect

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The Unruh effect is a quantum field prediction according to which a uniformly accelerated observer in the vacuum detects thermal particles with a temperature directly proportional to its acceleration. In other words, an accelerating thermometer in empty space will record a non-zero temperature.
This phenomenon is closely related to the Hawking effect, which describes the theoretical thermal radiation emitted by a black hole. The connection is provided by the equivalence principle, which shows how the two effects are the manifestation of the same physical phenomenon.

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