

Abstract Submitted
for the APR11 Meeting of
The American Physical Society

Violation of the equivalence principle via the Unruh effect STEVE WILBURN WILBURN, DOUG SINGLETON, CSU Fresno, EMIL AKHMEDOV, ITEP — We show that in certain situations the equivalence principle - stated as the local equality of acceleration with a gravitational field - is violated by the Unruh effect. For a black hole space-time with a horizon the EP holds, while for a gravitating body without a horizon (e.g. the Earth, a white dwarf, a neutron star) the EP is violated.

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Date submitted: 15 Jan 2011

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