A Newtonian bias embedded within the Schwarzschild metric

JOHN LAUBENSTEIN, Northern Illinois University — Karl Schwarzschild never suggested the existence of the event horizon. What we refer to as the Schwarzschild radius is the result of work done by David Hilbert after Schwarzschild's death. Albert Einstein never accepted what would later come to be known as the black hole. He was heavily criticized for his stubbornness in not accepting what his own theory predicted. Is it possible that both Einstein and Schwarzschild were on the right path all along? This paper explores the Equivalence Principle (EP) and suggests the need for a subtle revision. Specifically, the notion that acceleration may be held constant over a tiny interval within a homogeneous gravitational field. It is not my intent to challenge the mathematics of infinitesimal intervals. I suggest that there is nothing wrong with the mathematics of the Schwarzschild metric, but rather that this flawless mathematics results in modeling something that physically cannot occur from gravitation. My research provides an analysis of gravitational redshift and documents an inequality in the Equivalence Principle. The EP remains a critically important concept in understanding gravitation, yet it must be grounded within the correct correlation between acceleration and gravitation. This paper attempts to establish that correlation and further provides a mathematical proof of a Newtonian bias in the gravitational redshift equation that ultimately challenges the physical basis of the event horizon.

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