

Abstract Submitted
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Incompleteness of General Relativity, Einstein's Errors, and Related Experiments C.Y. LO, Applied and Pure Research Institute — General relativity is incomplete since it does not include the gravitational radiation reaction force and the interaction of gravitation with charged particles. General relativity is confusing because Einstein's covariance principle is invalid. There is no bounded dynamic solution for the Einstein equation. Gullstrand is right and the 1993 Nobel Prize for Physics press release is incorrect. Also, awards to Christodoulou reflect the blind faith toward Einstein and accumulated errors in mathematics. The Einstein equation with an electromagnetic wave source has no valid solution unless a photonic energy-stress tensor with an anti-gravitational coupling is added. Thus, the photonic energy includes gravitational energy. The existence of anti-gravity coupling implies that the energy conditions in space-time singularity theorems of Hawking and Penrose cannot be satisfied, and are irrelevant. The positive mass theorem of Yau and Schoen is misleading, though considered as an achievement by the Fields Medal. $E = mc^2$ is invalid for the electromagnetic energy alone. The discovery of the charge-mass interaction establishes the need for unification of electromagnetism and gravitation and would explain puzzles. Experimental investigations for further results are important.

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