

# On the Test of Newton's Inverse Square Law and Unification of Gravitation and Electromagnetism

--the questionable accurate gravitational constant of J. Luo—

C. Y. Lo

Applied and Pure Research Institute  
15 Walnut Hill Rd., Amherst, NH 03031  
[c\\_y\\_lo@yahoo.com](mailto:c_y_lo@yahoo.com)

## Abstract

Newton's inverse-square law of gravitation is the oldest standing mathematical description of a fundamental interaction. However, both Newton and Einstein failed to explain the Anomaly of the Space-Probes and flybys. Moreover, they also failed to explain experiments on the weight reductions of a charged metal ball, a charged capacitor and heated-up metal. These show that  $E = mc^2$  is not valid. To show that the weight reduction is not due to mass reduction, one can measure the acceleration of a neutral object in a free fall. We shall show that the accurate test of Newton's law is related to the unification of gravitation and electromagnetism that includes the charge-mass interaction and the current-mass interaction. Thus, to have an accurate test of this law, we must understand Einstein's unification, and exactly how temperature affect the measurement of weight. However, Einstein and his followers failed to show the need of unification due to inadequacy in non-linear mathematics and physics. These lead to overlooking the need of rectification in general relativity. It should be pointed out also that for the accurate Newtonian gravitational constant, J. Luo (罗俊) still needs more work.

KEYWORDS: anti-gravity coupling; gravitational radiation; repulsive gravitation; principle of causality.  
PACS: 04.20.Cv; 04.50.-h; 04.50.Kd; 04.80.Cc.