

Abstract Submitted  
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**Electro-gravitational Repulsion as an explanation for Various Astrophysical Phenomena** J. MONTGOMERY<sup>1</sup>, Weber State University, P. RUSSELL, North Carolina Central University — Recent analysis of carefully timed radio telemetry signals of several space probes deployed by NASA show that they are being slowed by an anomalous constant acceleration with an average magnitude of approximately  $8 \times 10^{-10} m/s^2$ , oriented with respect to the sun. Analysis of their slowdown, in addition to many other anomalous astrophysical phenomena indicates that a negative curvature of the space-time continuum is produced by the electromagnetic radiation of the sun. The acceleration appears to relate closely to the wavelength  $\lambda_{\max}$  at which the sun emits radiation most intensely. The evidence that supports this hypothesis also provides the solution to various other astrophysical and cosmological effects that exhibit anomalous gravitational behavior. Calculations using the data concerning the four probes result in the formula  $-a = \hbar \frac{c^2}{\lambda_{\max}}$  which expresses a negative acceleration that is proportional to the speed of light divided by the peak wavelength, multiplied by a new constant  $k$ . The evidence also gives a strong indication that light, in addition to its particle-wave nature, also has field characteristics.

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