

Abstract Submitted  
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**Scalar Potential Model of light** JOHN HODGE, Blue Ridge College  
— Some observations of light are inconsistent with a wave-like model. Other observations of light are inconsistent with a particle-like model. A model of light is proposed wherein Newton's and Democritus's speculations are combined with the cosmological scalar potential model (SPM). The SPM was tested by confrontation with observations of galaxy HI rotation curves (RCs), asymmetric RCs, redshift, discrete redshift, galaxy central mass, and central velocity dispersion; and with observations of the Pioneer Anomaly. The resulting model of light will be tested by numerical simulation of a photon behaving in a wave-like manner such as diffusion, interference, reflection, spectrography, and the Afshar experiment. Although the SPM light model requires more work, early results are beginning to emerge that suggest possible tests because a few predictions are inconsistent with both the current particle and wave models of light and that suggest a re-interpretation of the equations of quantum mechanics.

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