## Abstract Submitted for the FWS17 Meeting of The American Physical Society

Dark Matter Effects are Due to Multiple Causes WALTON PERKINS, Perkins Advanced Computing Systems — Recent results show that the rotation of disk galaxies is determined completely by the visible matter that they contain. This is strong evidence that the explanation for the observed galactic rotation is a modification of the Newtonian gravitation force law, such at MOND. Since the results span orders of magnitude in mass and density, it would require unrealistic dark matter variations and halo formations. Other dark matter effects, such as the large clumps of dark matter observed by weak gravitational lensing, could be explained by the presence of antimatter galaxies that emit invisible antiphotons[1]. [1] W. A. Perkins, "On the matter-antimatter asymmetry", Modern Physics Letters A 30, 1550157-1 (2015).

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