

Abstract Submitted
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A Quantized Metric As an Alternative to Dark Matter DAVID MAKER, mda — There are numerous observations implying the need for dark matter (WMAP, SDSS). The first direct evidence for dark matter was the observation that individual galaxy velocities inside clusters cannot be reproduced by the distributions of visible galactic matter alone (Zwicky 1933). The most compelling evidence for the existence of dark matter comes from galaxy halo velocity curves that are too high to be accounted for by the visible matter alone. Large scale structure arguments along with WMAP results require the dark matter candidate to be cold and weakly interacting. SUSY offers a natural candidate in the form of the neutralino with R parity conservation providing the mechanism for its stability (1, O’Farrill 2004). However SUSY does not provide a mechanism for dark energy. In order to deal with the problem of an accelerating expansion in the universe one must make other sets of assumptions. Also, recent observations show a quantization in the red shift, a quantization in spiral galaxy velocity curves and quantized small galaxy masses that are well outside of what any dark matter algorithms can simulate. This paper provides an alternative explanation of these well known effects and also explains the observed quantization by using a new generally covariant Dirac equation (2, Maker, 1998) with a quantized background metric. The three ambient metric contributions in this new Dirac equation also constitute the 3 free space leptons.

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