

Abstract Submitted
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A Quantized Metric As an Alternative to Dark Matter JOEL MAKER, None — The cosmological spherical symmetry background metric coefficient ($g_{44} \equiv g_{00} = 1 - 2GM/c^2 r$) should be inserted into a Dirac equation $\Sigma_\mu (\sqrt{g_{\mu\mu}} \gamma^\mu \partial \psi / \partial x_\mu) - \omega \psi = 0$ (1, Maker) to make it generally covariant. The spin of this cosmological Dirac object is nearly unobservable due to inertial frame dragging and has rotational $L(L+1) \Delta\varepsilon$ and oscillatory ε interactions with external objects at distance away $r \gg 10^{10} \text{LY}$. The inside and outside frequencies ω match at the boundary allowing the outside metric eigenvalues to propagate inside. To include the correct 3 lepton masses in this Dirac equation we must use ansatz $g_{oo} = e^{i(2\varepsilon + \Delta\varepsilon)}$ with $\varepsilon = .06$, $\Delta\varepsilon = .00058$. For local metric effects our ansatz is $g_{oo} = e^{i\Delta\varepsilon}$. Here the metric coefficient g_{oo} levels off to the quantized value $e^{i\Delta\varepsilon}$ in the galaxy halo: $g_{oo} = 1 - 2GM/rc^2 \rightarrow \text{rel}(e^{i\Delta\varepsilon}) = \cos(\Delta\varepsilon) = 1 - (\Delta\varepsilon)^2/2 \rightarrow (\Delta\varepsilon)^2/2 = 2GM/rc^2$ for this circular motion $v^2/r = GM/r^2 = c^2(\Delta\varepsilon)^2/4r \rightarrow v^2 = c^2(\Delta\varepsilon)^2/4 = (87 \text{km/sec})^2 \approx \mathbf{100 \text{km/sec}}^2$. So the metric acts to quantize v . Note also there is rotational energy quantization for the $\Delta\varepsilon$ rotational states that goes as: $(L(L+1)) \propto 1/2 m v^2 \rightarrow \sqrt{L(L+1)} \propto v$. Thus differences in v are proportional to L , L being an integer. Therefore $\Delta v = kL$ so $v = 1k$, $v = 2k$, $v = 3k$, $v = 4k \dots v = N$ (the above $\sim 100 \text{km/sec}$) with *dark matter then not required* to give these high halo velocities. Recent nearby galaxy Doppler halo velocity data **strongly support** this velocity quantization result.

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