

Abstract Submitted
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Galactic Rotation withOUT Dark Matter: Solar System Perspective CHUCK GALLO, JAMES FENG, Superconix Inc. — Planetary rotation around our Sun is described with Newtonian gravity/dynamics. These two-body calculations balance gravitational and centrifugal forces to yield stable orbits. The rotation of disk galaxies involves the gravitational interaction of many bodies, but this data is also described with Newtonian gravity/dynamics by balancing all the gravitational forces against the centrifugal forces at each and every point in the galactic disk to yield stable rotation. A thin-disk galaxy is complex mathematical problem that does NOT have an analytical solution. Numerical (computational) techniques are required to obtain an accurate UNIQUE STABLE solution for the radial mass distribution to yield any specific measured rotation curve. Both the Solar and Galactic rotation descriptions are achieved withOUT Mysterious Dark Matter which has never been experimentally detected. Speculations re Dark Matter are NOT required to describe the galactic rotation curves and achieve stability, only Newtonian physics with numerical solutions enabled by modern computational techniques.

References:

<http://arxiv.org/abs/astro-ph/0803.0556>

<http://arxiv.org/abs/astro-ph/0804.0217>

<http://arxiv.org/abs/astro-ph/0804.3203>

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