GENERALIZED TITIUS-BODE'S RULE AND ASTEROIDAL BELTS

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Abstract. The minimal possible radius of a planetary orbit in the Solar system is the Solar radius. Starting from this idea, it is shown that the Titius-Bode's rule for observed planetary distances from the Sun can be generalized. For an arbitrary choosen planet with order number k, as reference body, The TB-rule gets the form:

$$r_n = r_k \cdot \phi^{n-k}, \qquad n, k = 1, 2, 3...$$

Possible implications of this formula are considered, specially concerning of asteroids beyond the Neptune.

QUANTIZATION IN MACROSCOPIC GRAVITATIONAL FIELD

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Abstract. Planetary orbits in Solar system contain the condition of quantization for the momentum of impulse per mass unit. Some other analogies with atomic systems (e.g. validity of Bohr's formulae for distances, speeds and energies) are demonstrated.