MASS-RADIUS TEST FOR CENTRAL BODY IN PLANETARY SYSTEMS

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Abstract. The formula like the Bohr's one for hydrogen atom is used with two different minimal distances for calculation of planetary distances. The real radius of the central body and "transposited gravitational radius" (containing mass of the central body) are accepted as the minimal radius of the orbit (average distance). So introduced "quantum numbers" determined from orbital elements of planets or satelites give possibility for a test of mass or radius of the central body. It has been done for 47 UMa, 70 Vir, PSR 1257+12 and PSR 1829-10.