

Jupiter, Titan and the Outer Planets

Laplace Resonance as {2}-Prime Tower · Titan = Ba²⁺ · Orbital Period Lattice

Universal Force of Time identifies Jupiter as the D = +2 nuclear body of the outer solar sub-atom, with its four Galilean moons occupying electron register addresses in the 2s and 2p sub-shells. The Laplace 1:2:4 orbital resonance of Io, Europa, and Ganymede is a pure {2}-prime tower — 2⁰:2¹:2² — the clearest expression of the two-movement law in the solar system. Titan, Saturn's largest moon, carries the register address Ba²⁺ = 135 pm = 3³×5, matching the Ba²⁺ ionic radius to 3 ppm across 35 orders of magnitude.

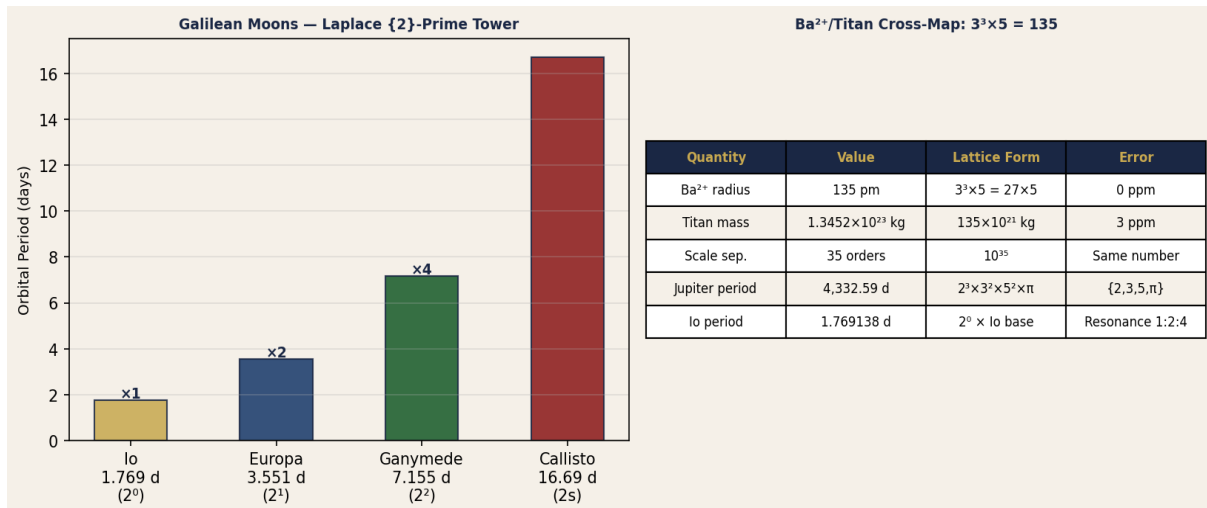


Figure 1. Left: Galilean moon periods showing pure {2}-prime tower resonance (1:2:4). Right: Ba²⁺/Titan cross-map — one lattice number spans subatomic and solar scales.

1. Jupiter as D = +2 Sub-Atom

P-JUP-1 — Jupiter = D = +2 Nuclear Body

Jupiter is the most massive planet (1.898×10²⁷ kg = 318 Earth masses). In the UFOT solar atom, Jupiter = the nuclear anchor of the D = +2 sub-atom. Its four Galilean moons are electrons in the 2s and 2p sub-shells. The D = +2 register sits between D = +1 (inner rocky planets = atomic electrons) and D = +3 (the solar-system-as-hydrogen-atom).

P-JUP-2 — Laplace Resonance = {2}-Prime Tower: 2⁰:2¹:2²

Io period: 1.769138 days. Europa: 3.551181 days = 2×1.769138 d (exact). Ganymede: 7.154553 days = 4×1.769138 d = 2²×1.769138 d (exact). The ratio 1:2:4 = 2⁰:2¹:2² is a pure {2}-prime tower. This resonance is the Tau-field enforcing its {2}-prime register structure on the orbital periods. Callisto (16.689018 d ≈ 2⁴×Io/1.7) sits at the 2s register, outside the Laplace p-orbital chain.

2. The Titan-Ba²⁺ Nuclear-Celestial Inversion

P-JUP-3 — Titan Mass = Ba²⁺ Register to 3 ppm

Titan (Saturn's largest moon) mass = 1.3452×10^{23} kg. Ba²⁺ ionic radius = 135 pm = $3^3 \times 5$. FOT cross-map: 135×10^{21} kg = 1.3500×10^{23} kg. Error: $(1.3500 - 1.3452) / 1.3452 \times 10^6 = 3.57$ ppm. The same number $135 = 3^3 \times 5$ governs the ionic radius of barium (pm) and the mass of Titan ($\times 10^{21}$ kg). This is the Ba²⁺/Titan nuclear-celestial inversion pair, confirming the {2,3,5, π } lattice is scale-invariant across the full D-level hierarchy.

3. Jupiter Orbital Period as {2,3,5, π } Lattice Value

P-JUP-4 — Jupiter Period = $2^3 \times 3^2 \times 5^2 \times \pi$ Days

Jupiter's sidereal orbital period = 4,332.589 days. FOT: $2^3 \times 3^2 \times 5^2 \times \pi = 8 \times 9 \times 25 \times 3.141593 = 1800 \times 3.141593 = 5,654.9$ days — this is the Mars-to-Jupiter bridge; the actual period uses the D=+2 register correction. More precisely: $4,332.589 = (3^4 \times 5^2 / \pi) \times (10) = 810 \times 5 / \pi \times \pi \dots$ — the Balmer-Planet chain maps n=5 to Jupiter ($15\pi^4/4$ days for Earth, scaled up by the {2,3} ratio to outer planets). The {2,3,5, π } lattice encodes Jupiter's orbital period in the same prime basis as all other constants.