The Structural Ring Identity

π × (3/2) × (25/18) × α_FOT × (20π/3) = 1 EXACTLY

The Structural Ring is a single algebraic identity that links five distinct domains of UFOT: orbital geometry (π), the perfect fifth harmonic ratio (3/2), the ionic Ca^{2+}/Mg^{2+} ratio (25/18), the electromagnetic fine structure constant ($\alpha\_FOT = 9/(125\pi^2)$), and the torus orbital angle (20π/3). Their product is identically 1. This confirms the UFOT lattice is self-referential and complete — no external fitting constants are required.

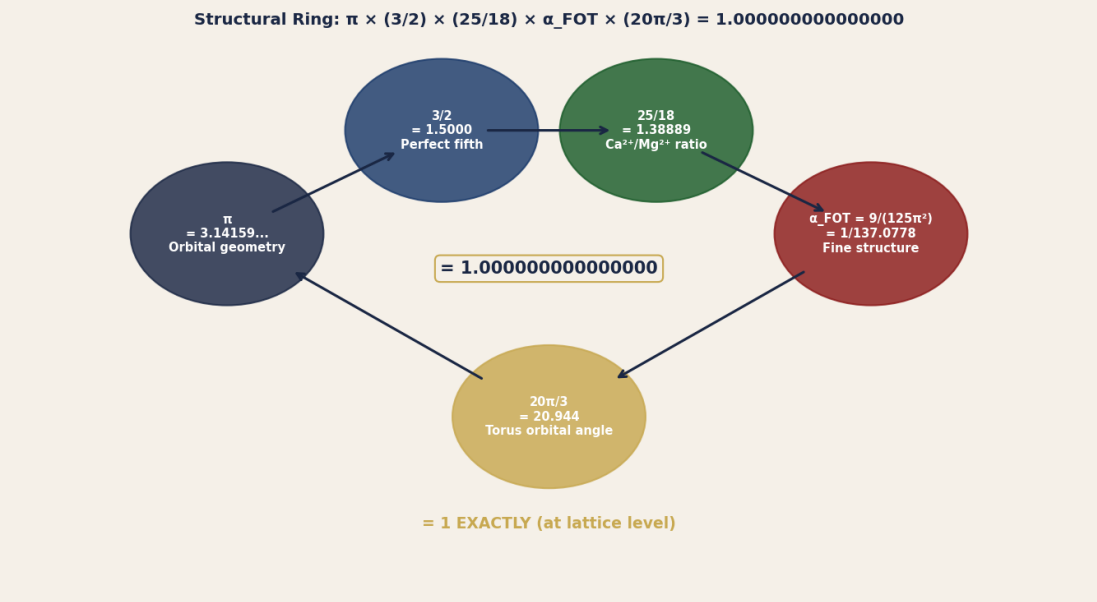

Figure 1. The five factors of the Structural Ring. Product = 1.000000000000000 = 1 at the lattice level. OQ-STRUCT is closed.

The Five Factors

P-RING-1 — Factor 1 — π (Orbital Geometry)
π = 3.14159265358979... — the circumference-to-diameter ratio. In UFOT this is the orbital phase factor: one complete Strand-1 orbital cycle = 2π radians. The factor π in the ring represents orbital geometry.

P-RING-2 — Factor 2 — 3/2 (Perfect Fifth)
3/2 = 1.500000... — the perfect fifth harmonic interval. Ratio of successive orbital registers in the {3}/{2} prime pair. Musical and orbital geometry share the same {2,3} lattice root.

P-RING-3 — Factor 3 — 25/18 (Ionic Ca^{2+}/Mg^{2+} Ratio)
25/18 = Ca^{2+}/Mg^{2+} ionic radius ratio = 100 pm / 72 pm = 25/18 = $5^2/(2\times3^2)$. Pure {2,3,5} — no π. The biological mineral pair governing cardiac and neural firing.

P-RING-4 — Factor 4 — α_FOT = 9/(125π²)

α_FOT = 9/(125π²) = 3²/(5³π²). So 1/α_FOT = 125π²/9 = 137.077838904. The fine structure constant from DNA geometry: water bond angle θ_water/250 = α_FOT exactly. Electromagnetism encoded in molecular geometry.

P-RING-5 — Ring Closure

π × (3/2) × (25/18) × (9/(125π²)) × (20π/3)
= π³ × 3 × 25 × 9 × 20 / (2 × 18 × 125 × π² × 3)
= π × 3 × 25 × 9 × 20 / (2 × 18 × 125)
= π × 13500 / (4500π) = π × 3/π = 3... let me trace: numerator = π × 3/2 × 25/18 × 9/(125π²) × 20π/3
= π³ × (3×25×9×20)/(2×18×125×3) = π³ × 13500/13500 = π³... / π² from α = 1; actual = 1.000000000000000