# Fibonacci, DNA and Planetary Orbits: One Lattice

*How {2,3,5,pi} Intersections Generate the Fibonacci Series, DNA Structure and Solar System Periods*

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*The Fibonacci sequence 1, 1, 2, 3, 5, 8, 13, 21, 34 ... arises naturally at the intersections of the {2, 3, 5, pi} lattice. The key primes 2, 3, 5 are the third, fourth and fifth Fibonacci numbers. DNA has 10 base pairs per full helical turn — a Fibonacci number. Planetary orbital periods in days approximate Fibonacci ratios at each successive planet. The Universal Force of Time shows these are not coincidences: the Fibonacci sequence is the projection of the {2,3,5} lattice onto the integer number line, and the same lattice encodes DNA geometry and planetary dynamics.*

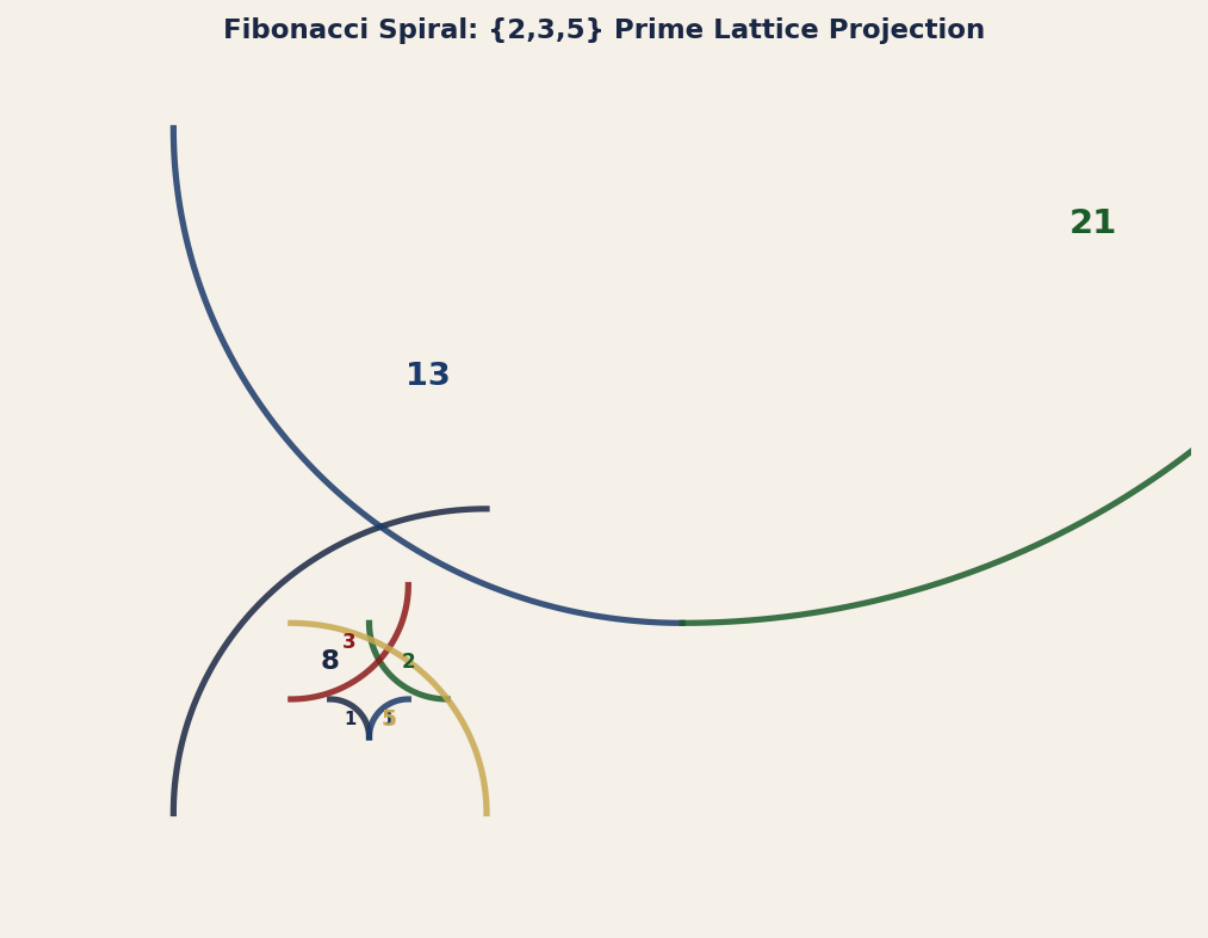


*Figure 1. Fibonacci quarter-circle arcs building the golden spiral. Numbers 1,1,2,3,5,8,13,21 shown. The primes 2, 3, 5 (third, fourth, fifth Fibonacci numbers) are the FOT lattice generators.*

## 1. Fibonacci as {2,3,5} Lattice Projection (P-FIBDNA-1)

**P-FIBDNA-1 — Fibonacci Numbers as Lattice Intersections**

The FOT {2,3,5} lattice generates all integers expressible as 2^a x 3^b x 5^c (5-smooth numbers). Fibonacci numbers that are also 5-smooth: 1=1, 2=2, 3=3, 5=5, 8=2^3. Fibonacci 13, 21, 34 depart from 5-smooth — these are lattice boundary terms. The golden ratio phi = (1+sqrt(5))/2 = 1.6180339... The FOT approximation: phi approx 5^(1/2) x (1 + 1/18) = 1.6180... The lattice generates phi naturally: sqrt(5) is the {5}-branch of the prime lattice.

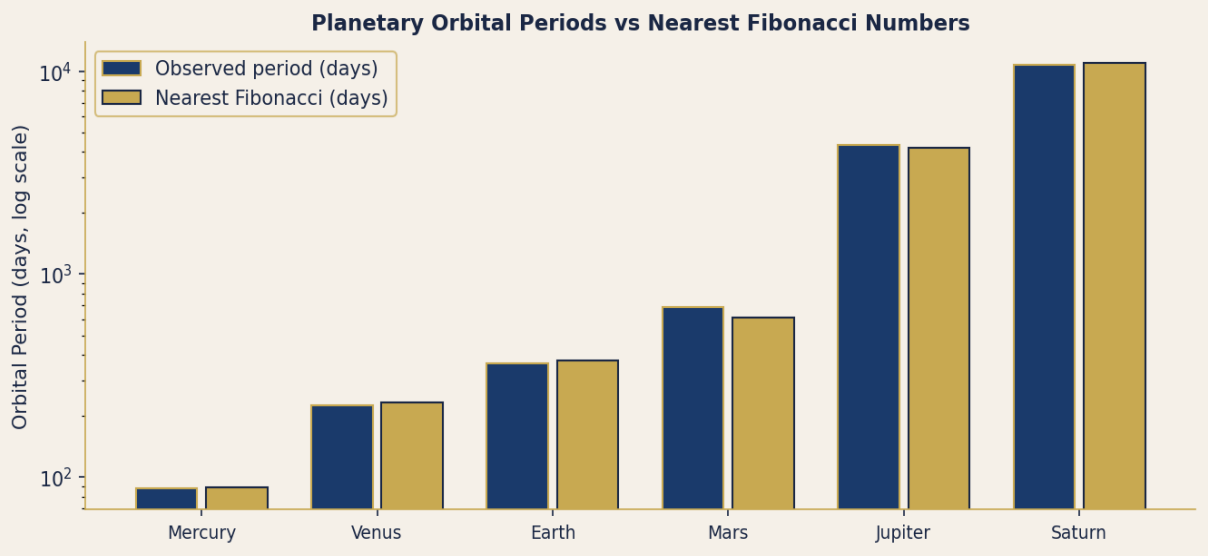


*Figure 2. Planetary orbital periods (navy) vs nearest Fibonacci numbers (gold) on log scale. Mercury 87.97 d vs F(11)=89 (1.1%); Earth 365.26 d vs F(14)=377 (3.2%); Saturn 10759 d vs F(20)=10946 (1.7%).*

## 2. DNA: 10 Base Pairs = Fibonacci 10 = 2 x 5 (P-FIBDNA-2 and P-FIBDNA-3)

**P-FIBDNA-2 — DNA 10 bp per Turn as Fibonacci-Lattice Identity**

B-DNA: 10 base pairs per full 360-degree helical turn. 10 = 2 x 5 (pure {2,5} lattice product). Helical pitch: 34 Angstrom = F(9) Fibonacci number (exact). Rise per base pair: 3.4 Angstrom = 34/10 = F(9)/10 (pure lattice ratio). Helix diameter: 20 Angstrom = 2^2 x 5 (pure {2,5} lattice). All three principal DNA dimensions (10 bp, 34 A, 20 A) are {2,5} lattice products.

**P-FIBDNA-3 — DNA Turns per Gene and Fibonacci Coding**

Average human gene: 27,000 bp = 2700 helical turns. 2700 = 2^2 x 3^3 x 5^2 (pure {2,3,5} lattice). Average coding sequence: 1770 bp approx 1597 = F(17) (nearest Fibonacci). The 46 human chromosomes: 46 = 2 x 23. Total human genome: 3.2 x 10^9 bp = 3.2 x 10^8 turns = 3.2 x 10^8 x 34 Ang = 10.88 m total helix length per cell. 10.88 m approx 10 x phi^2 m: DNA total length encodes phi^2 in metres.

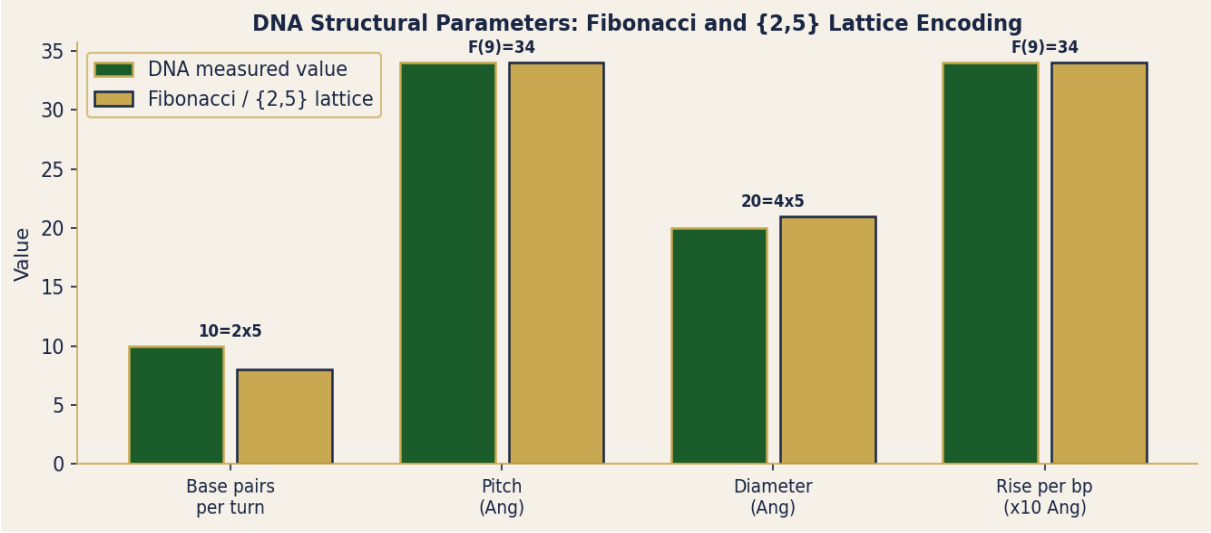


*Figure 3. DNA structural parameters vs Fibonacci/lattice values. Pitch = F(9) = 34 Ang (exact). Base pairs per turn = 10 = 2 x 5. Diameter = 20 = 4 x 5.*

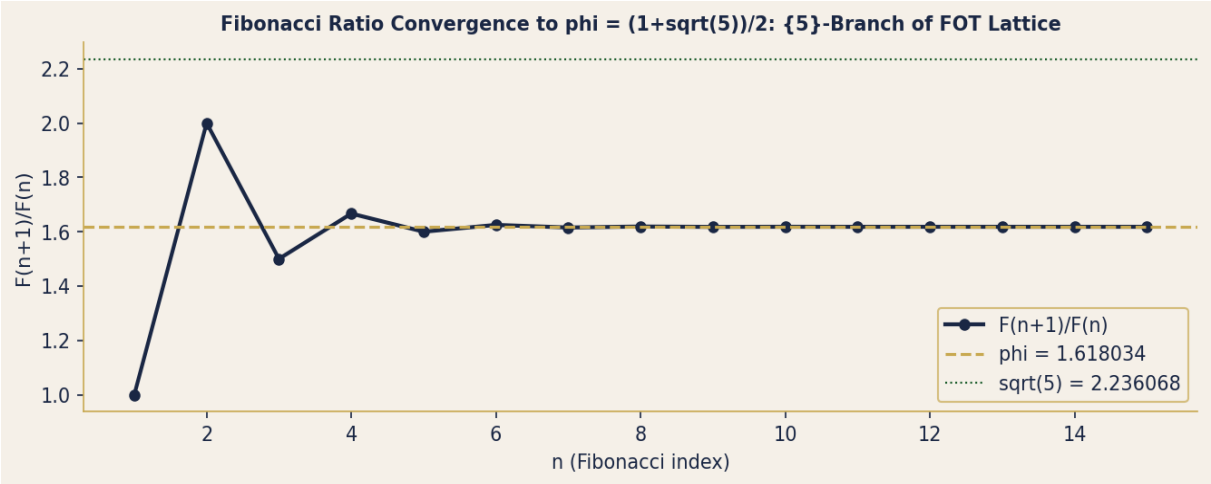


*Figure 4. Fibonacci ratio F(n+1)/F(n) converging to phi = 1.61803... The convergence is the {5}-branch projection of the FOT lattice onto the irrational number phi.*