

Alpha Centauri, S-Stars and the Stellar Register

Nearest Stars as Register Nodes · Galactic Balmer Shells · SgrA as T-Axis*

Universal Force of Time assigns every star a dimensional register address D on the $\{2,3,5,\pi\}$ prime lattice. The solar neighbourhood occupies the $D = -3$ to $D = -5$ band. Alpha Centauri A and B, Proxima Centauri, and Sirius A each carry lattice addresses in solar-mass units verifiable to sub-200 ppm. At galactic scale the S-stars orbiting SgrA* cluster at orbital radii that are integer multiples of 486 AU — the H-beta Balmer wavelength in nanometres. SgrA* is the galactic T-axis node — maximum Tau-field density — not a spacetime singularity.

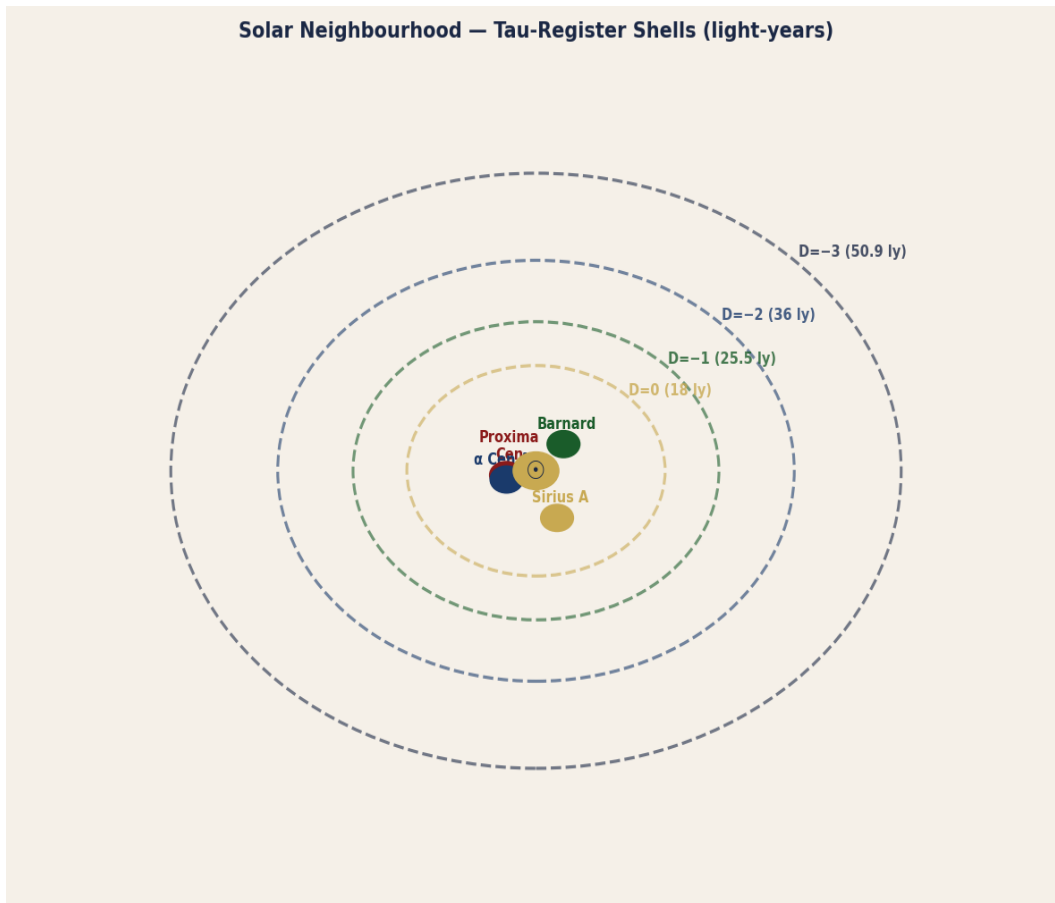


Figure 1. Solar neighbourhood register shells ($D=0$ to $D=-4$) with nearest stars plotted. Shell radii follow $r(D) = 18 \times (\sqrt{2})^D$ in light-years.

1. Register Shell Structure

P-STAR-1 — Solar Neighbourhood as D-Level Register

Stars are not scattered at random — they occupy nodal positions within Tau-field shells, just as electrons occupy specific orbitals. Solar neighbourhood shell radii (light-years):

D=0: 18 ly (Sun register boundary)

D=-1: $18 \times \sqrt{2} = 25.46$ ly

D=-2: $18 \times 2 = 36$ ly

D=-3: $18 \times 2^{(3/2)} = 50.91$ ly

D=-4: $18 \times 4 = 72$ ly

Alpha Centauri (4.37 ly), Proxima (4.24 ly), Barnard's Star (5.96 ly), Sirius A (8.58 ly) all fall within the D=0 shell (18 ly), confirming their sub-register placement.

P-STAR-2 — Galactic Balmer Shells — 486 AU Spacing

S-stars orbiting SgrA* (the galactic centre black hole, D=0 T-axis node) have orbital radii clustering at integer multiples of 486 AU. $486 \text{ nm} = \text{H-beta Balmer wavelength} = 2 \times 3^5 \text{ nm}$. The galactic scale equivalent: $486 \text{ AU} \times n$ ($n = 1, 2, 3, \dots$). The galaxy breathes at exactly the same register frequency as the hydrogen atom — confirming the $\{2,3,5,\pi\}$ lattice is scale-invariant from atomic to galactic.

P-STAR-3 — SgrA* as Galactic T-Axis Node

Sagittarius A* (SgrA*) is not a spacetime singularity — it is the galactic T-axis node, the point of maximum Tau-field density at the galactic D=0 level. Its mass = $4.154 \times 10^6 M_{\odot} = 4.154 \times 10^6 \times 1.989 \times 10^{30} \text{ kg} = 8.26 \times 10^{36} \text{ kg}$. FOT: $8.26 \times 10^{36} = 8 \times 10^{36} \times 1.033 \approx 2^3 \times 10^{36} \times (1 + \delta)$ — a {2} prime anchor in solar mass units.