DISCOVERY-POSTULATE #4 SGDM & PATENT #6: DIURNAL POLAR V-STAND OF CHESNOKOV FOR MEASURING SPATIAL GRAVITON POLARIZATION AND CALIBRATING THRUST

Fundamental Treatise: Discovery-Postulate #4 (Secular Coaxial Spin-Graviton Polarization of Earth and the Multiverse), 100-Year Chronicle of Experiments (Miller, Kozyrev, Laithwaite, Gravity Probe B, Planck), Patent #6 (Polar V-Stand with Viscous Dampers f > 50 Hz), and Sidereal 23h 56m Calibration

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Patent Portfolio:	Discovery-Postulate #4 and Patent #6 (Diurnal Polar V-Stand of Chesnokov). Full patent registry: https://multiverse.asistent-aiart.ru/en/interferometer.html
Official Research Portal:	https://multiverse.asistent-aiart.ru/en/ | Contact: europo1@yandex.ru, +7 (903) 652-90-14

Section 1. Fundamental Discovery and Postulate #4 of SGDM Series

Formulation of Postulate #4 (Yuri A. Chesnokov): 'A previously unknown fundamental property of material bodies and astrophysical systems is established, wherein the net spin-graviton vector of nuclear ensembles (Ng = A, s = 2), under secular diurnal rotation of planets, stars, and galaxies, is forced into coaxial polarization with the universal polar axis +Z (Axis of Evil / IC 1101 — Phoenix A), producing gravimagnetic anisotropy, latitudinal weight variations of spinning gyros, cosmic microwave dipole asymmetry, and enabling propellantless coupling with vacuum metric.'

Section 2. 100-Year Historical Chronicle of Experimental Proofs (1925–2026)

- 1. Dayton Miller (1925–1933) — 32-meter baseline interferometer conducted 200,000 measurements, recording diurnal ether-drift v ≈ 8–10 km/s toward Draco (+Z axis);
- 2. Nikolai Kozyrev (1950–1975) — torsion balances recorded rate anomalies strictly when rotation axis aligned with Polaris (+Z);
- 3. Eric Laithwaite (1974) & H. Hayasaka (1989) — asymmetric weight loss $\Delta W/W \approx 10^{-5}$ of Beryllium-9 rotors strictly during clockwise rotation coaxial with Earth;
- 4. NASA Gravity Probe B (2011) — cryogenic gyroscopes in polar orbit confirmed Lense–Thirring frame-dragging (37.2 mas/year) along Earth's spin axis;
- 5. WMAP & Planck Spacecraft (2005–2015) — discovered the 'Axis of Evil' — universal alignment of cosmic microwave quadrupole/octupole harmonics (p < 0.1%);
- 6. Astrophysics 2021–2026 (JWST, NANOGrav, CatWISE) — mapped the giant polar quasar dipole and low-frequency gravitational-wave background from black hole mergers.

Section 3. Patent #6: Diurnal Polar V-Stand of Chesnokov

Designed for continuous precision measurement of spatial graviton polarization, engine vibration filtering, and metrological calibration of propellantless drives (Patents #3 & #4):
• Symmetric V-Beam Suspension: Beam 1 aligns with Polaris at latitude φ (parallel to Earth's axis), Beam 2 mirrors South at angle α = 90° - φ to vertical;
• Central Gimbal Ring with Dampers: locks the test rotor coaxially with Beam 1;
• Viscous Oil Integrators: sensors immersed in high-viscosity silicone fluid (ν ~ 10,000 cSt) completely suppress high-frequency motor vibration (f > 50 Hz).

Section 4. Mathematical Formulations and Calibration Equations

4.1. Separation of Static Mass M_0 and Dynamic Graviton Thrust F_SGDM:

$$M_0 = [(T_1 + T_2) \cdot \cos\alpha] / g, \quad F_SGDM = [T_2 - T_1] / [2 \cdot \cos^2\alpha] \qquad (1)$$

- M_0 — true static mass of the test module (kg);
- F_SGDM — net dynamic graviton thrust force (Newtons, N);
- T_1, T_2 — tension readings on North (1) and South (2) sensors (N);
- $\alpha = 90° - \varphi$ — beam inclination angle to vertical (for latitude φ);
- $g = 9.8156$ m/s² — local gravitational acceleration.

4.2. Sidereal 24-Hour Drift and 12-Month Orbital Modulation:

$$\Delta P(t) = F_SGDM \cdot \cos\varphi \cdot \cos(\Omega_E \cdot t) \cdot [1 + \varepsilon_orb \cdot \cos(\Omega_year \cdot t)] \quad (2)$$

- ΔP(t) — instantaneous weight difference during diurnal rotation (N);
- Ω_E ≈ 7.292115 × 10^{-5} rad/s — Earth's angular velocity (15°/hour, sidereal day 23h 56m 04s);
- ε_orb = v_orb / v_CMB = 29.78 / 627 ≈ 0.0475 (4.75%) — 12-month orbital modulation depth from Earth's motion around the Sun;
- Ω_year = 2π / 365.25 days — annual orbital frequency.

Section 5. Claims of the Invention (Patent #6 SGDM)

1. A device for measuring spatial graviton polarization and calibrating propellantless propulsion thrust, comprising a frame, test object suspension, and sensors, characterized in that the suspension is a symmetrical dual-beam V-system, wherein the first beam is oriented parallel to Earth's polar axis at latitude (φ), and the second beam is mirrored South at angle (90° - φ) to vertical, with the test module mounted in a central ring aligned with the first beam.
2. The device of claim 1, characterized in that the sensors are precision load cells immersed in sealed containers with silicone fluid (5,000–20,000 cSt) suppressing motor vibrations above 50 Hz.
3. The method of claim 1, characterized by continuously recording differential tension ΔP(t) = T_2(t) - T_1(t) over 24-hour sidereal cycles, extracting diurnal harmonics proportional to cosφ and annual orbital modulation of ±4.75%.

Section 6. Integration with Atlas and SGDM Patent Suite

The Chesnokov V-Stand and Postulate #4 complete the SGDM empirical framework:
• 'Atlas of Nuclear Graviton Topology' grounds isotope selection (Be-9, Al-27, Ta-181);
• 'Patent #3' and 'Patent #4' define the 4-rotor drive with L_Σ ≡ 0 cancellation;
• 'Propellantless Interplanetary Monograph' calculates Earth-Mars transit without propellant;
• Patent #6 delivers laboratory ground metrology and 100% thrust verification prior to space launch!

FINAL METROLOGICAL VERDICT:
Postulate #4 and Patent #6 unify 100 years of physical anomalies (Miller, Kozyrev, Laithwaite, Gravity Probe B, Planck) into a rigorous metrological architecture: the diurnal polar V-stand with viscous dampers delivers direct measurement of vacuum graviton polarization and absolute calibration of SGDM propellantless drives.
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