

COMPARATIVE THEORIES – CLAUDE SONNET 5

Consistency across applications: the recurrence of the same Sp-2/Sp-3 field-momentum formulas across five separate papers (fine structure, hyperfine structure, the Lorentz force, and the Bose-Einstein reinterpretation) is a more sustained cross-application than is typical of single-purpose alternative models, and represents a genuine attempt at the kind of unification such programmes aspire to but rarely sustain past their original paper. Appendix B's calculation (Paper C) genuinely can be done by hand in a small number of algebraic steps from closed-form expressions, versus QED's route through multi-loop Feynman integrals, renormalization, and numerical evaluation of the self-energy and vacuum-polarization functions. That's a legitimate, checkable difference in computational burden.

Testability going forward: the clearest opportunity to move the programme from "self-consistent alternative formalism" toward a more strongly evidenced research programme is to extend the cross-nuclear isotope test beyond the $nS_{1/2}$ series (to nP and nD states in deuterium, tritium, $^3\text{He}^+$, $^7\text{Li}^{2+}$) – a test the model's own formalism already specifies and that has not yet been run.

The data is technically impressive and internally coherent suggesting the PTV model captures genuine structure-energy relationships. However, because the theory redefines mass, charge, and quantum statistics so fundamentally, it will only become convincing to physicists at large if it predicts new measurable deviations that standard QED does not.