

Yang-Mills Kaluza-Klein Equivalence: An Empirical Path For Extending the Standard Model

RICHARD L. AMOROSO

Noetic Advanced Studies Institute
Los Angeles, CA 90025 USA
amoroso@noeticadvancedstudies.us

Abstract. Can Yang-Mills Kaluza-Klein correspondence drive the Future of Particle Physics? For example horizontal and vertical subspaces in the tangent bundle of M ($M = X \times G$) defined by the Yang-Mills connection are orthogonal with respect to the Kaluza-Klein metric suggesting putative orthogonal extensions of dimensionality beyond the four required by the Standard Model. This requires a fundamental change in the meaning of the concept of dimensionality. An empirical protocol has been found for falsifying the model; which if successful could have far reaching consequences for validating M-Theory and provide table-top low energy Unified Field Mechanical 'cross section' alternatives for 'viewing' putative SUSY partners in a trans-dimensional 'slice' rather than the usual 100 TeV, PeV collider collision technique producing the standard cross section particle spray in the current highly successful 100 year history of high energy collision physics. Two special processes emerge for creating new dimensions: 1) duality, where the dimensions are fundamentally different in character, and 2) anticommutativity, where they are fundamentally the same. Our program is currently developing a unique complex quaternionic Clifford algebra required to operate the experimental design. Rather than the current iteration of String/M-Theory this work is based on a radical extension of the original hadronic form of string theory because of corresponding key elements such as virtual tachyon/tardon interactions and a variable concept of string tension, T_S .

References

- [1] L. O'Raifeartaigh (1997) The Dawning of Gauge Theory, Princeton University.
- [2] E.A. Rauscher, P. Rowlands & R.L. Amoroso (2015) Dirac Equations in Nilpotent Quaternionic Space-Antispace and Eight Dimensional (8D) Complex Minkowski Space (2015) in RL Amoroso, LH Kauffman & R Rowlands (eds.) Unified Field Mechanics: Natural Science Beyond the Veil of Spacetime, Singapore: World Scientific.
- [3] Amoroso, R. L. & Rauscher, E. A. (2010) Empirical protocol for measuring virtual tachyon/tardon interactions in a Dirac vacuum, in R.L Amoroso, P. Rowlands & S. Jeffers, AIP Conference Proceedings-American Institute of Physics (Vol. 1316, No. 1, p. 199).
- [4] Amoroso, Richard L. (2013) Unified geometrodynamics: A complementarity of Newton's and Einstein's gravity, in R.L Amoroso, P. Rowlands & L.H. Kauffman, The Physics of Reality; Space Time Matter Cosmos, Hackensack: World Scientific or: http://vixra.org/pdf/1403.0919_v1.
- [5] Amoroso, R. L. & Rauscher, E. A. (2009) On the possibility of relativistic shock-wave effects in observations of quasar luminosity in R.L Amoroso & E.A. Rauscher The Holographic Anthropic Multiverse Formalizing the Complex Geometry of Reality, Hackensack: World Scientific.
- [6] Amoroso, R. L. (2010) Simple resonance hierarchy for surmounting quantum uncertainty, in Amoroso, R. L., Rowlands, P., & Jeffers, S. in AIP Conference Proceedings-Am Inst. Physics, Vol. 1316, No. 1, pp. 185-193.