

Quantum Boolean intelligence

1. relies on the observations that
 - (a) WCW spinors correspond to fermionic Fock states
 - (b) Fermion Fock state basis spans a Boolean algebra.
 - (c) Superposition of manyfermion states with fixed total fermion number is consistent with superselection rules defined by fermion number conservation
 - (d) In ZEO states are zero energy states with positive and negative parts of states having opposite fermion numbers. Therefore super-selection rule allows full superposition. (note that also in super- conductors coherent pairs of Cooper pairs correspond to this kind of state)
 - (e) In ZEO U-matrix has as "rows" M-matrices which are products of Hermitian square root of projection operator and unitary S-matrix.
2. assumes that
 - (a) WCW spinor fields can be interpreted as stating "laws of physics" coded to the structure of zero energy states
 - (b) With pairs formed by positive and negative energy parts of Fock states having interpretation as Boolean statements and their superposi- tions forming quantum Boolean statements analogous to qubits.
3. These assumption imply that
 - (a) WCW spinor fields have interpretation as quantum Boolean statements about "laws of physics" and thus represent Boolean intelli- gence: matter reduces to correlates of Boolean thoughts.
 - (b) if Hermitian projection operator has rational eigenvalues, the Boolean entanglement is negentropic. This is true for unitary entanglement matrices assignable to quantum compu- tation.
4. allows to consider also finite measurement resolution realized as inclusions of hyperfinite factors of type II_1 (HFFs) for WCW spinors.
 - (a) Coset spaces formed by including and included factors defines quantum analogs of finited- imensional spaces defined by finite tensor powers of 2-spinors.
 - (b) This space has fractal quantum dimension expressible in terms of Beraha numbers.
 - (c) Quantum spinors and their tensor products would represent quantum version of Boolean logic with finite Boolean resolution.