Shorter refutation of CHSH inequality

Copyright © 2018 by Colin James III All rights reserved.

We assume the method and apparatus of Meth8/VŁ4 with `T`autology as the designated *proof* value, `F` as contradiction, `N` as truthity (non-contingency), and `C` as falsity (contingency). The 16-valued truth table is row-major and horizontal.

LET: p, q, r, s: E(a,b), E(a,b′), E(a′,b), E(a′,b′); ~ Not; & And; + Or; - Not Or;
> Imply, greater than; < Not Imply, less than; = Equivalent; @ Not Equivalent;
% possibility, for one or some; # necessity, for all or every;
(p@p) contradiction; (%p>#p) ordinal 1; (%p<#p) ordinal 2; (p=p) proof.

From: en.wikipedia.org/wiki/CHSH_inequality

> The usual form of the CHSH inequality is based on "terms *E*(*a*, *b*) etc. [as] quantum correlations of the particle pairs, where the quantum correlation is defined to be the expectation value of the product of the "outcomes" of the experiment, i.e. the statistical average of $A(a)\cdot B(b)$, where *A* and *B* are the separate outcomes, using the coding +1 for the '+' channel and −1 for the '−' channel":

$|S| \leq 2$, where $S = E(a,b)-E(a,b')+E(a',b)+E(a',b')$. (1.1)

~((%p<#p)>((p-q)+(r+s)))=(p=p) ; `FCCC FFFF FFFF FFFF` (1.2)

Eq. 1.2 as rendered is *not* tautologous. This means the CHSH inequality is refuted.