Proof of anticommutation between exchange and charge conjugation DANIEL MILLER, Intel Corporation — We prove anticommutation between the exchange and charge conjugation of Lorenz invariant bispinors by raising the Lorenz symmetry to $SO(3N, N)$ and lowering it back to $SO(3, 1)$. This finding contradicts one of the foundations of the spin–statistics theorem and the exclusion principle for antimatter. An experimental confirmation of the present theory will open up a path to solve the paradox of the matter–antimatter asymmetry of the universe in a quantum electrodynamics framework. The antimatter universe will be unstable owing to the lack of degeneracy pressure.

Daniel Miller
Intel Corporation

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