

1162-81-43

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60637-1946. *Spacetime Algebra and the Majorana Dirac Equation.*

(Joint work with Peter Rowlands) We formulate the Dirac equation in terms of spacetime algebra, a Clifford algebra generated by e_1, e_2, e_3, e_4 , all pairwise anti-commuting and such that the first three have square 1 and e_4 has square -1. In this formulation we classify those solutions that give rise to Majorana Dirac equations (with all real solutions) and we discuss properties of Majorana Fermions from this point of view, including representations of the Artin Braid group and possible applications to quantum computing. (Received August 19, 2020)