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**Louis H. Kauffman\*** ([kauffman@uic.edu](mailto:kauffman@uic.edu)), Math UIC, 851 South Morgan Street, Chicago, IL 60607-7045. *Iterants, Majorana Fermions and the Dirac Equation*. Preliminary report.

Iterants are a generalisation of matrix algebra useful for expressing many of the algebras that occur in mathematical physics (such as the Dirac algebra). We will use iterants to discuss the structure of Majorana Fermions. In particular, we will give a Feynman checkerboard model for a Majorana Fermion in the 1+1 case, and we will discuss the possibility of using Majorana Fermions in topological quantum computing. (Received February 03, 2014)