



UNIVERSITY OF MIAMI
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The Standard Model and the Lattice

Abstract

The $SU(3) \times SU(2) \times U(1)$ standard model maps smoothly onto a conventional lattice gauge formulation, including the parity violation of the weak interactions. The formulation makes use of the pseudo-reality of the weak group and requires the inclusion a full generation of both leptons and quarks. As in continuum discussions, chiral eigenstates of the Dirac operator generate known anomalies, although with rough gauge configurations these are no longer exact zero modes.