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Exact Results in Chiral Gauge Theories with Flavor

We present exact results in SU(N_C) chiral gauge theories with charged fermions in an antisymmetric, N_F fundamental, and $N_C + N_F - 4$ anti-fundamental representations. We achieve this by considering the supersymmetric version of these theories and utilizing anomaly mediated supersymmetry breaking at a scale m to generate a vacuum. The connection to non-supersymmetric theories is then argued by taking the limit $m \to \infty$. For odd N_C, we determine the massless fermions and unbroken global symmetries in the infrared. For even N_C, we find global symmetries are non-anomalous and no massless fermions. In all cases, the symmetry breaking patterns differ from what the tumbling hypothesis would suggest.

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