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## Dynamical Breakdown of Symmetries in QED<sub>3</sub>

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### ABSTRACT

We analyze the possibility of dynamical breakdown of parity in QED<sub>3</sub>. We find that for an even number of fermions, only chiral symmetry is broken dynamically while parity is conserved. For an odd number of fermions, where a parity conserving mass generation is not possible, we find no consistent non-trivial solution for the Schwinger-Dyson equations, leading us to conjecture that at least one fermion remains massless and no mass is induced for the photon in this case.

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