Contribution ID: **5** Type: **Talk**

Fermions and the spontaneous breaking of scale invariance

Thursday 28 November 2019 14:45 (30 minutes)

We present the first example of the Bardeen-Moshe-Bander phenomenon in a purely fermionic relativistic quantum field theory. In this talk I will give an overview of the phenomenon, in which a scale invariant theory may nonetheless have massive excitations due to strong coupling effects, before explaining how this situation arises in a purely fermionic field theory: a less symmetric version of the well studied Gross-Neveu model in three dimensions. I will conclude by discussing the relation of this fermionic effect to the original phenomenon in scalar field theories, and connections to certain "bosonisation"dualities.

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