

## A Scaling Theory of Quantum Breakdown in Solids

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### Abstract

To view the classical nonequilibrium breaking phenomena, like fracture, as critical phenomena and to apply the consequent scaling theories for their study are not new and some finer details are in fact well established by now. The Landau-Zener type tunneling brakdown, leading to insulator-metal transitions in solids under strong electrical fields, can also be viewed as a quantum phase transition. Will present a simple scaling picture for such quantum breakdown phenomena.