

Electronic inhomogeneities and percolation in strongly correlated materials

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Keywords: Mott transition, disorder, electronic inhomogeneities, percolation

We analyze the role of disorder in systems close to a Mott transition and demonstrate that such a state is highly sensitive to the smallest amounts of imperfections or impurities, leading to the formation of electronic inhomogeneities. In addition we present a theory of the percolation quantum phase transition in diluted quantum magnets.