

Title: Quantum mechanics in the presence of disorder  
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Abstract: To describe the motion of a quantum particle in a disordered medium, one introduces random parameters, accounting for impurities, substitutions or defects in the crystalline structure. In one dimension, further discretization reduces the resulting mathematical model to a study of products of random matrices. While the properties of this model are well understood in the Schroedinger case, the analogous problems for the Dirac equation are being addressed by mathematicians only now, in part because of their importance for physics of graphene. I will explain the mathematical background and pose an important open question. No knowledge of quantum physics is assumed.