Contribution Title: THE MOTT'S CONJECTURE
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YRS seminar: YES

In a seminal paper [1] Sir Neville Mott suggested a quantum mechanical explanation of the appearance of sharp classical-like tracks in a Wilson chamber (the first tracking chamber for particle physics experiments). Mott's paper remained almost unnoticed till the second half of the last century when a renewed interest in the problem of decoherence (i.e. the emergence of classical properties due to the interaction with the environment) showed up in the community of theoretical physicists. Since that time the possibility to understand at least some qualitative features of such process thoroughly inside the framework of Quantum Mechanics, without relying on any "reduction of the wave packet" postulate, has been matter of debate in fundamental and applied Theoretical Physics (see, e.g., [2], [3], [4], [5], [6]). In this poster we present solvable models ([8], [9]) where the interaction with the environment drives a quantum system to behave more classically.

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