- Sections 9.1-9.5 show that the electron field responds to a classical external electromagnetic radiation field by emitting electrons according to Poisson-law probabilities, very much like that interpreted by Einstein in terms of light particles. Thus, the quantum detector produces discrete Poisson-distributed clicks, although the source is completely continuous, and there are no photons at all in the quantum mechanical model. The state space of this quantum system consists of multi-electron states only. So here the multi-electron system (followed by a macroscopic decoherence process that leads to the multiple dot localization of the emitted electron field) is responsible for the creation of the dot pattern. This proves that the clicks cannot be taken to be a proof of the existence of photons. (See L. Mandel and E. Wolf, Optical Coherence and Quantum Optics, Cambridge University Press, 1995.)