

# A note on the definition of the finiteness of the electron

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## Abstract

An experimental particle is distinguished from its state by a particular spatial configuration. It is the electron bound state. We show that the relations between the finiteness of the electron and its state are the same as the Fourier transform of the Hamiltonian of the entangled particles, and that the finiteness of the electron is determined by the spatial configuration. The finiteness of the electron can be measured by the fragment of the kinetic energy of the particles, which is obtained by the reflection of the particles at a finite temperature. We show that the particles are always in the same state with regard to the finiteness of the electron. We comment on some of the consequences of this definition.