

On the Structure of the Electron

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Dedicated to Ibo

Usually the electron is described as a mathematical point with charge, mass, spin angular momentum, and electromagnetic field. Because of the unbounded energies this causes mathematical difficulties [1]. These can be avoided by considering a finite radius. For a “free electron at rest” a classical relativistic model is presented where an axisymmetric torus models the electron. This configuration “differentially rotates” around its axis of symmetry with superluminal speed.

Key words: Classical Field Theory; Relativistic Fluid Dynamics.