

Abstract Submitted
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Quantum potential FLORENTIN SMARANDACHE, University of New Mexico, VICTOR CHRISTIANTO, SciPrints — One of the deep questions related to the physical meaning of wavefunction of the Schrödinger equation is whether there is neat linkage between Schrödinger equation and classical wave dynamics. In other words, whether there is coherent picture to describe electron from these different approaches: quantum wave dynamics and classical electrodynamics. This question remains open for discussion, in particular in the context of plausible analogue between classical electrodynamics and non-local quantum interference effect, in particular via Aharonov effect. Hofer has also argued in the same direction, noting that it is possible to find physical meaning of wavefunction in classical electrodynamics sense. One could expect to find a neat link between Schrödinger equation and classical wave dynamics. Another way to put forth the idea is to preserve that ‘particles’ mean particles, regardless we use classical dynamics method or Schrödinger equation; this lead us to introduce the ‘quantum potential’ term.

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