

Review of: "Evanescent Electron Wave Spin"

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Potential competing interests: No potential competing interests to declare.

Earlier (<https://doi.org/10.1088/2399-6528/ac8599>), the wave nature of the spin was studied analytically with the help of the Dirac equation for an electron inside a two-dimensional quantum well. There, it was shown that a stable circulating total current density exists inside the well with donut shaped topography. Now (<https://doi.org/10.32388/EWV928.2>), the wavefunction existence is validated inside an infinite quantum well and is predicted also outside the finite cylindrical quantum well, though it should decay rapidly. Thus it is evanescent in analogy to the evanescent waves observed in optics; therefore, the achievements of the latter can also be used for wave spin. The authors of the reviewed work propose that their achievements will lead to the possibility to probe on quantum spin information through the evanescent wave spin without destroying the entire spin state. The main thing is that this is a bold and pioneering work that provides an opportunity for deep insight into the fundamental and philosophical problems of physics. To my mind, the great Niels Bohr would have rejoiced at such manifestation of his principle of complementarity (*the opposite is not a negation, but a complement*); this manifestation, perhaps, will be accessible in the future by direct experimental verification of the results of the reviewed work. The new version of the article demonstrates this clearly. It seems to me, that the words "where (ρ, ϕ, z) represent polar, azimuthal angle and z coordinate, respectively" should come after (4), and also "sigma" determinations should be brought.