

Review of: "Evanescent Electron Wave Spin"

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Potential competing interests: No potential competing interests to declare.

This work is exciting; the authors indicate that an evanescent wave spin exists outside a finite quantum well by solving the Dirac equation in a finite cylindrical quantum well. To reach this goal, they solve the Dirac current density both within and outside the well and claim that measurements of the current outside the well can enable the observer to probe the electron spin within the well. Generally, the manuscript is expected to be revised carefully.

Comments:

1-Authors should provide more explanations for the used equations by mentioning their references.

2-In eq(6) the sentence: "the momentum along z-direction is set $P_z = 0$ for our discussion". not clear to readers please explain this.

3-The authors should further brief the readers on the physics behind the Plots of large components and small components in Figure 1 and Figure 2.