

Review of: "What connects entangled photons?"

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Potential competing interests: No potential competing interests to declare.

Full Title: What connects entangled photons?

In this work, the author investigates a local realistic model in which the indistinguishability of the entangled photons explains the physical states but in this scheme the photon pairs do not share the value of a statistical parameter. The author has claimed that this model rejects Bell's theorem but can explained teleportation and entanglement swapping in a local way.

The reported results seem correct and sound. The manuscript is written with sufficient quality to be understood; however, the writing could be improved. The manuscript proceeds mostly in a logical fashion but perhaps also here some changes can be considered. I believe that the obtained results to be of interest for the community focused on theoretical work in quantum information processing and other related fields. I have here listed a series of points aimed at improving the manuscript that should be addressed.

1. I understand that you have already made an effort to improve the English, but I must say there is still a lot of room for improvement.
2. In manuscript, the punctuation marks are not used well.
3. In page 2, section 2.2, the author writes "we define $d = a - j$ as the difference between the polarizer setting and the" but in previous section referred this model to reference [5].
4. The author has claimed that this model rejects Bell's theorem but it is not clearly explained in the text.
5. For the sake of better presenting, explain the advantage of your work with respect to previous related work, in introduction.
6. One question that arises in the mind of reader is that Which model assumptions in section 2.2 are preferable?
7. Do ? explain about this equation in manuscript.

After the Author have addressed these points, I would recommend the publication of this work in Qeios.

Best regards

Negin fatahi