

## Review of: "The Born Rule is a Feature of Superposition"

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Potential competing interests: No potential competing interests to declare.

In the paper an expanded probability theory built by introducing the mathematical notion of superposition events is proposed in a finite space. It is shown that the Born Rule arises mathematically with the superposition events. At the beginning of Section 2 the author has to add the condition P(S)>0 in the definition of the conditional probability. Otherwise all proposed results may have no meaning. The author should investigate what happens if the probability of an event S is zero. Superposition events are represented in the paper by an incidence matrix; it would be interesting to explain how the relation that defines a superposition event can be defined mathematically. The notion of superposition event seems to be connected to the concept of equivalence class with respect to an equivalence relation defined in the power set of the sample space. But the incidence matrix of a superposition event does not represent a symmetric relation. If so the author should explain it. Otherwise if the binary relation does not partition the sample space there are some events that do not admit superposition event. The author should explain under which condition the superposition event exist for every set B in a partition as he claim in section 0.3.

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