

K. Hatano, Y. Ueda, Pusz-Woronowicz functional calculus revisited (revised version)

Referee report

I think the paper has improved a lot. The purpose and motivations of the paper are now much clearer. I find the relation of the Pusz-Woronowicz calculus to operator connections and related quantities and their properties interesting and worth publishing. The only drawback of the paper that has to be improved is the use of English. Since I do not feel qualified to provide a language check, I only mention a few places that definitely need attention:

1. p. 1, line 3: "has not been paid so much attention" ... "has not received much attention" seems better
2. p.1, the same sentence: "...has not been paid so much attention, except [21,15,16,3,22,23], etc,..." This is rather strangely formulated. Perhaps something like "...has not received much attention apart from some works in the context of mathematical physics based on operator algebras, such as [...]..." would be better.
3. p.2, last line: "we can apply itself..." ... "it can be applied" seems better
4. p.4, first sentence of Sec. 3.2: "We believe that the facts given in this subsection have not appeared before (in any literature)." Or just "are new" would suffice.
5. p.8, first sentence of Sec.4.1: "would be thought" ... "could be thought"(?). Also replace "from" by "of".
6. p. 8, 1.6 from below: "one can easily check"
7. p. 9, Proof of Thm. 9, first sentence: I suggest to give the definition here.
8. p. 10, line 2: "This can explains.." ... "This explains"

In conclusion, I suggest that the authors consult an expert to improve the usage of English language. Apart from that, the paper can be published.