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A remark on Machida-Namiki theory of measurement. (English) Zbl 1097.81503

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From the introduction: Recently *S. Machida* and *M. Namiki* [ibid. 63, No. 6, 1833–1847 (1980)] proposed a theory of measurement in quantum mechanics, in which a continuous superselection rule plays an important role for the reduction of wave packets. The purpose of this paper is to provide an abstract background for such a theory. We do not mean by this to develop the most general framework. Rather we try to abstract an essential feature of the Machida-Namiki argument and at the same time provide a brief explanation for some aspects of continuous superselection rules for physicists who might not be familiar with some of the mathematical background.

MSC:

81P15 Quantum measurement theory, state operations, state preparations

46L60 Applications of selfadjoint operator algebras to physics

Cited in 11 Documents

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