

Abstract Submitted
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Multi-Valued Logic, Neutrosophy, and Schrödinger Equation

FLORENTIN SMARANDACHE, University of New Mexico, VICTOR CHRISTIANO, SciPrints — Discussing some paradoxes in Quantum Mechanics from the viewpoint of Multi-Valued-logic pioneered by Lukasiewicz, and the recent concept Neutrosophic Logic. Essentially, this new concept offers new insights on the idea of ‘identity’, which too often it has been accepted as given. Neutrosophy itself was developed in attempt to generalize Fuzzy-Logic introduced by L. Zadeh. The discussion is motivated by observation that despite almost eight decades, there is indication that some of those paradoxes known in Quantum Physics are not yet solved. In our knowledge, this is because the solution of those paradoxes requires re-examination of the foundations of logic itself, in particular on the notion of identity and multi-valuedness of entity. The discussion is also intended for young physicist fellows who think that somewhere there should be a ‘complete’ explanation of these paradoxes in Quantum Mechanics. If this it doesn’t answer all of their questions, it is our hope that at least it offers a new alternative viewpoint for these old questions.

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