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A gentle introduction to Schwinger's picture and groupoids in Quantum Mechanics

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An alternative formulation of Quantum Mechanics based on selective measurements due to Schwinger is reviewed. It is argued that the mathematical structure behind Schwinger's "Symbolism of Atomic Measurements" is that of a groupoid. In this framework, both the Hilbert space (Schrödinger picture) and the C^* -algebra (Heisenberg picture) of the system turn out to be derived concepts, that is, they are built out of the underlying groupoid structure.

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