General Relativity and Quantum Cosmology

On a Geometrical Description of Quantum Mechanics

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We show that Quantum Mechanics can be interpreted as a modification of the Euclidean nature of 3-d space into a particular Weyl affine space which we call Q-wis. This is proved using the Bohm-de Broglie causal formulation of Quantum Mechanics. In the Q-wis geometry, the length of extended objects changes from point to point. In our proposed geometrical formulation, deformation of the standard rulers used to measure physical distances are in the core of quantum effects.

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