A Quantum Mechanical Description

of the Laws of Relativity

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We have examined the old purported dilemma of quantum mechanics versus the theory of relativity\(^1,\,2\). By proposing a first principles, relativistically invariant theory, via an analytic extension of quantum mechanics into the complex plane we offer a model that (i) include features such as time- and length-scale contractions\(^3\) and (ii) suggest incorporation of gravitational interactions\(^2\), (iii) the Einstein general relativistic law of light deflection\(^2\) and (iv) the compatibility with the Schwarzschild metric in a spherically symmetric static vacuum\(^1\). The present viewpoint asks for a new perspective on the age-old problem of quantum mechanics versus the theory of relativity as the relation with the Klein-Gordon-Dirac relativistic theory confirms some dynamical features of both the special and the general relativity theory.

