

The aim of this talk is to find a geometric origin for the wave function and the Schrödinger equation in quantum mechanics. In our approach we assume that the trajectory of particles depends on some new extra variables. Our geometric approach is, to modify the metric on the configuration space used in the Kinetic term of the Lagrangian of the classical mechanics such that, in addition to the position x of the particle, it also has a dependence on the derivative of x with respect to this extra variable. Next, we integrate out the extra variable from this generalized mechanics to reach a new action in terms of the wave function whose variation leads to the Schrödinger equation of the standard quantum mechanics.