

# Spinning Strings in Quantum Mechanics

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**Abstract-** In this short paper we examine how a flux tube called the spinning string leads to quantum effects.

**Keywords:** Quantum mechanics; hidden variables; relativity; quantum thermodynamics; philosophy.

## I. INTRODUCTION

We are aware that spin describes a rotation in the four dimensional spacetime. One step further is to assume that this rotation comes from five dimensions.

A five dimensional ring rotates. The case is typical in spinning black holes where a ring is formed around the point singularity. This is witnessed in four dimensions as a hypersphere a spherical hypersurface of simultaneity which is the volume the particle is found within. We believe a spinning string is evolved in this rotation. This hypersphere is projected in the complex plane in which  $\psi$  the wave function evolves. The surface described by  $\psi$  in this plane is the solid angle with which the observer witnesses the events.

## II. MAIN PART

In the atom the electron rotates in a fluid spacetime. Once a photon is received spacetime becomes superconducting [1,2] and superfluid. A pair of magnetic monopole-antimonopole forms as a discontinuity of ordinary spacetime marking the beginning and end of the event and also North and South. A spinning string carries the magnetic flux. Spin is evolved in the sense that a rotation takes place in the fifth dimension transforming our view of angles.

Between magnetic monopole antimonopole pairs are spacetime threads. These threads carry vorticity.[3] We should imagine them like a straw in which air is sucked in. The picture of a spinning string from which a Christmas ball is turning is also adequate. The word  $\psi$  means thin as a hair and

this is the reason  $\psi$  is chosen as the name for the wavefunction.

This is the way the quantum droplets grow in the steam model. It is the same way we blow up a Ballon The finally appearing as a point particle except from a balloon may be considered as a spherical mirror [4] which is turning. In its frame of reference the world is spinning. The spherical mirror is also a spherical vortex due to its spin. Mass curves spacetime and creates all this vorticity but it is through its spin that it does so. Massless particles like photons have zero spin. Spin thus describes a pair of monopole-antimonopole connected with a string[5]. These pairs form a cloud of droplets describing possible spacetime events and condensate eventually to a point particle, a discontinuity in spacetime[6,7]

## III. CONCLUSION

The author has put forward some last conclusions of 35 years of research during which some 40 papers were published. We have proved that there are hidden variables in quantum mechanics giving a deeper explanation of the physical theory. Indeed we do not need to know what  $\psi$  the wavefunction represents to carry out the calculations. However there is a high philosophy involved.

A book was scheduled to be published in 2025 as we were celebrating 100 years of quantum theory but due to unfortunate circumstances it has been postponed for 2026.

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