

## Theory of the Interactive Quantum Gravity Quantum Spring Gravitational Pendulum

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**Received:** September 10, 2024, Manuscript No. TSPA-24-147679; **Editor assigned:** September 13, 2024, PreQC No. TSPA-24-147679 (PQ); **Reviewed:** September 27, 2024, QC No. TSPA-24-147679; **Revised:** February 13, 2025, Manuscript No. TSPA-24-147679 (R); **Published:** February 20, 2025, DOI. 10.37532/2320-6756.2025.13(1).408.

### Abstract

**Springs and pendulums engage in an interaction between potential and kinetic energy described by a process known as simple harmonic motion, but in this work we deal with complex harmonics, as described in my paper on quantum harmonics that substantiates my theory of interactive quantum gravity to observe quantum effects in gravity at a super accelerator of particles of my conceptual design, with projected energies 15 orders of magnitude greater than those**

**Keywords:** *Interactive quantum gravity; Rotating spiraling quantum vortex; Quantum pendulum*

### Introduction

It is assumed that the rotating spiraling quantum vortex would act as the quantum gravity oscillator of particles to emit the concentrated quantum gravity energy beam, as that by the black hole [1].

Such cosmic system or simulated phenomenon in the lab would consist of quantum spiral as gravitational pendulum, to contract and expand as a clock spring in old watches, to interact with space-time by a dual action acceleration and expansion mechanism of quantum pendulum which can transport particles back and force in time and space by the equivalent energy momentum of quantum gravity, as in our universe [2].

It means that not the Bing Bang, but such cosmic quantum gravity modulator had triggered The Beginning of All in Primordial Universe, as substantiated in my work The Transitional Universe (PU) on the evolution of the PU to our universe in a double cone cosmic structure per universal principal of duality [3,4].

### Description

This assumption is based on my work The Geometry of Space-time and its model with internal gravitational waves in a 4D structure (Figure 1).

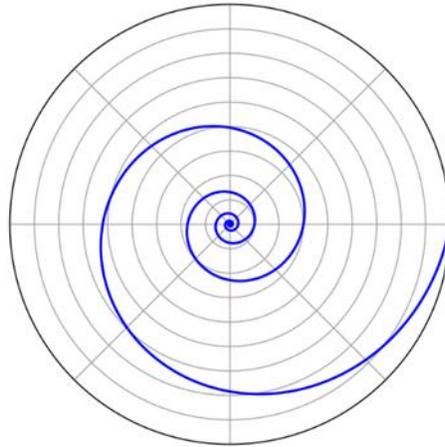


FIG. 1. **Logarithmic spiral plotted in polar coordinates.**

Such cosmic quantum gravity self-interactive system could generate enough energy to create stars, black holes and spiral galaxies with the integrated cosmic gravitational collapse mechanism, as a cosmic DNA to be deciphered by scientists.

Usually, gravitational interaction refers to the attractive force between two bodies, which is determined by their mass [5]. In our described case, we deal with an interacting gravity which repels and attracts in modulation within a cosmic body *via* internal coordinates, as seen in the above illustration.

In this respect we introduce here the notion of the quantum modulation of gravitational waves which could be "tuned" to a basic gravitational frequency to change space-time ratios and dimensions and modulate them. that can be done by quantum harmonics as per my published work, based also on my works of theory of unified matter and the theory of quantum gravity in superstrings [6,7].

## Conclusion

So, in the above described system we deal not with separate atomic particles, but with the clusters of quantitative quanta in isomorphic quantum gravity.

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