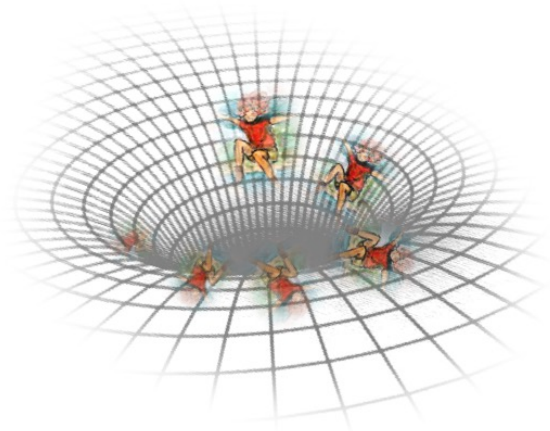


## Is Our Universe an Hologram: Trixi down the rabbit Black-Hole

Trixi is walking on the way back home after a long day spent with her classmates. She had indeed a very interesting day trip organized from the school, where she with her classmates were learning about the seasons and the beautiful atmosphere of the fall accompanying the first school days. They were enjoying the animals populating the woods and the parks together with the warm colour of the leaves falling on the ground. They were indeed very enthusiastic about learning the seasonality of life, the causality and ultimately the perception of reality surrounding us. On the way, back home she found a squirrel first staring at her and then suddenly starts running away. It was a squirrel like those she had noticed in the woods during the class trip, so intrigued she starts looking after him running as fast as she can, and without even realizing she crossed the event horizon out her box of reality and falling down a deep black hole.

She disappeared for ever from the world as we know it. She didn't disappear and falling down this deep black hole she started experiencing something totally unexpected, a new perception of reality and new way to interact with the surrounding existing world. She will realize soon as everything she learned in her life will be completely upside-down within this new multi-dimensional world inside the inner core of the black hole. The concept of information and reality will completely be revisited and revolutionised as it will be reconsidered the way itself humans perceive and process bit of information in human brain.

Trixi indeed didn't disappear from our world as the quantum mechanics first principle claims there is no way that information could be destroyed and certainly in any different form it's always preserved. At the same time, general relativity thought us the because of heavily gravitational force featuring the black hole nothing can escape from it once the event horizon



line is overcome, as this it will require to travel at a speed higher than speed of light. Here is the dilemma and the controversy between quantum mechanics and general relativity.

I will take you in this journey where we will learn about the holographic principle trying to understand why physicists as Prof. Susskind and Prof. Maldacena from Stanford University are considered real pioneers in this new multi-verse theory formulating the theory claiming how reality of our universe is indeed an hologram and a 2D-projection of a different 3D reality existing somewhere else. We will reconsider the idea we have about observables, detection of measurements and their relation with the deeper concept of consciousness, finding out how these 2 entities are intrinsically connected with the Copenhagen interpretation of Quantum Mechanics. Starting from the very beginning we will examine Young double slit experiment and its unescapable implications and then we will go towards all the main paradox quantum mechanics together with general relativity faced trying to address the revolution of consciousness we are experiencing into the matrix we are living in.