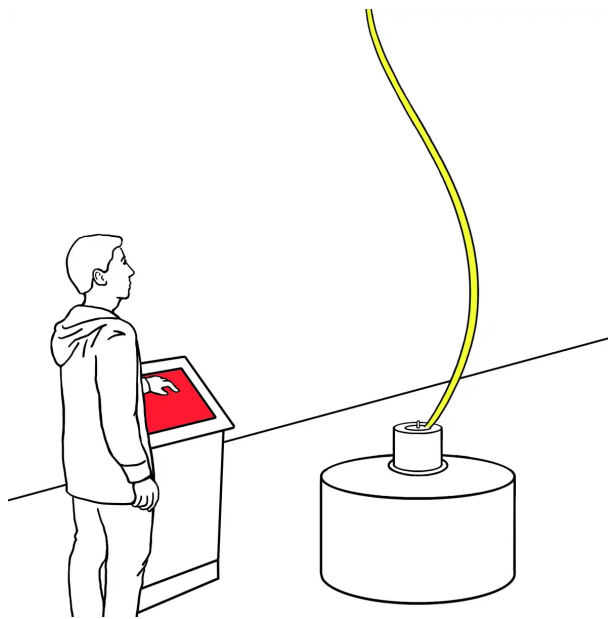


String theory

Paul Friedlander

What shapes are created in the dancing rope?



Observe the dancing rope.

Choose two colour patterns and move the circle on the screen for the lighting.

The single rotating nylon strip creates complex shapes. The different movement patterns are sometimes harmonious like the vibration of a violin string and sometimes chaotic.

The nylon strip moves faster than the eye can see. It takes about a tenth of a second for the image on our retina to fade away. The individual images of the rapidly rotating nylon strip merge into one volume.

Focusing on similar complex movements of so-called strings, physicists have been searching for “The Theory of Everything” since 1984. According to string theory, they assume that all matter and energy consists of small strings that become a different type of particle, force, or energy, depending on the movement. However, the strings cannot be observed as directly as this light installation because they are much smaller than atoms. Thus, it is not yet clear whether string theory can unify all laws of physics.