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# Beyond Imagination

*If astrophysics meets contemporary art*



"Neutrino trap stirring up cosmic dust", © [Mariusz Sołtysik](#)

Man is distinguished in that it interacts with its environment. Use of motor skills and communication, he can be effective stimuli, and design, through his senses, it can capture the state of its environment in several grades. Yet much remains hidden from him. I already wrote once [about the limits of perception](#) and talked physical quantities such as temperature and time essential that we can adequately measure tools with only.

Engaged in by the artists [John Baldessari](#) with physical quantities, so abstract, and sometimes non-intuitive things, I stumbled recently on an artist of impressive dimensions of the inability of human perception is dedicated to. - It's about neutrinos and the unimaginable situation of trillions of particles punctured every

second be. For imagination begins where perception ends.

A Neutrino: What is it anyway? In short, neutrinos are particles that have the capacity to connect with nothing in interaction. Since neutrinos are created in nuclear fusion and our sun is a giant nuclear reactor, each square centimeter is fired on earth with 60 billion neutrinos per second. And we do not experience it. How could they? Neutrinos fly through space and leave no traces, so do not feel for us and can only be measured with highly sensitive instruments and lots of patience. (The interested reader is at this point to [Professor Harald Lesch](#) recommended. [In duplicate.](#) )



"Neutrino trap stirring up cosmic dust", © [Mariusz Sołtysik](#)

And then there comes a [Mariusz Sołtysik](#) and gives us an impression of this incredible bombardment. With simple means, namely, some dust and light, he creates his own neutrino event in "stirring up cosmic neutrinos trap dust" and symbolizes so this monstrous event that goes beyond our imagination incessantly to himself.

Since they are as shot from the sky, this all-pervasive particles, small, bluish dust grains trapped in the impenetrable neutrino case, the gallery floor of the [Patio Art Centre in Łódź](#) . A beam of light pointing the way to the source, the sun, and illuminated what was first created by it: This wonderful ghost particles, which could

see no eye has ever lie, there sparkling and available at any time before us. Just as the sparkle of gold in the pan scrubber, which he begins the precious item from the river, so they also radiate neutrinos captured the Sołtysik for us and has spread. The miracle has become tangible: A particle for astrophysics and quantum mechanics - that is, the peak of our science - is of such significance that eludes also completely our perception and especially by holding a ghostly aura is visible at one time and appears as a beautiful star dust that was ejected from millions of years ago supernovae in distant galaxies.



"Spazio Elastico" © Gianni Colombo

A similarly incredible concept such as the neutrino is the most general theory of relativity, which provides in particular that point a barely imaginable description, the curvature of spacetime by energy to the content. broken down the essentials, this means that large energy accumulation curve such as rich body the space and the time in a certain field, and thereby bring objects that are in this field, to an

acceleration in the direction of the energetic body. We call it gravity, and then draw **pretty diagrams** to make it **any display clearly** to.

Remains undisputed, however, that such statements can hardly contribute to a genuine understanding. The man has a distinctive and sensitive area and positional sense, both in terms of the medical and the emotional evaluation of spaces. And yet we can perceive the curvature of space is not postulated, whereas it is an integral part of the world around us.

Da Gianni Colombo comes into play, which is one of the most important artists that deal with space and perception, and to directly engage the viewer by manipulation in an impressive interplay. One of his most famous works is the "Spazio Elastico, the elastic space: Colombo stressed by this, a room with white rubber bands that were similar to a coordinate system and regularly arranged perpendicular to each other. The room was lit only with black lights, motors enabled the cords in motion and deformed so steady that they stretched grid.



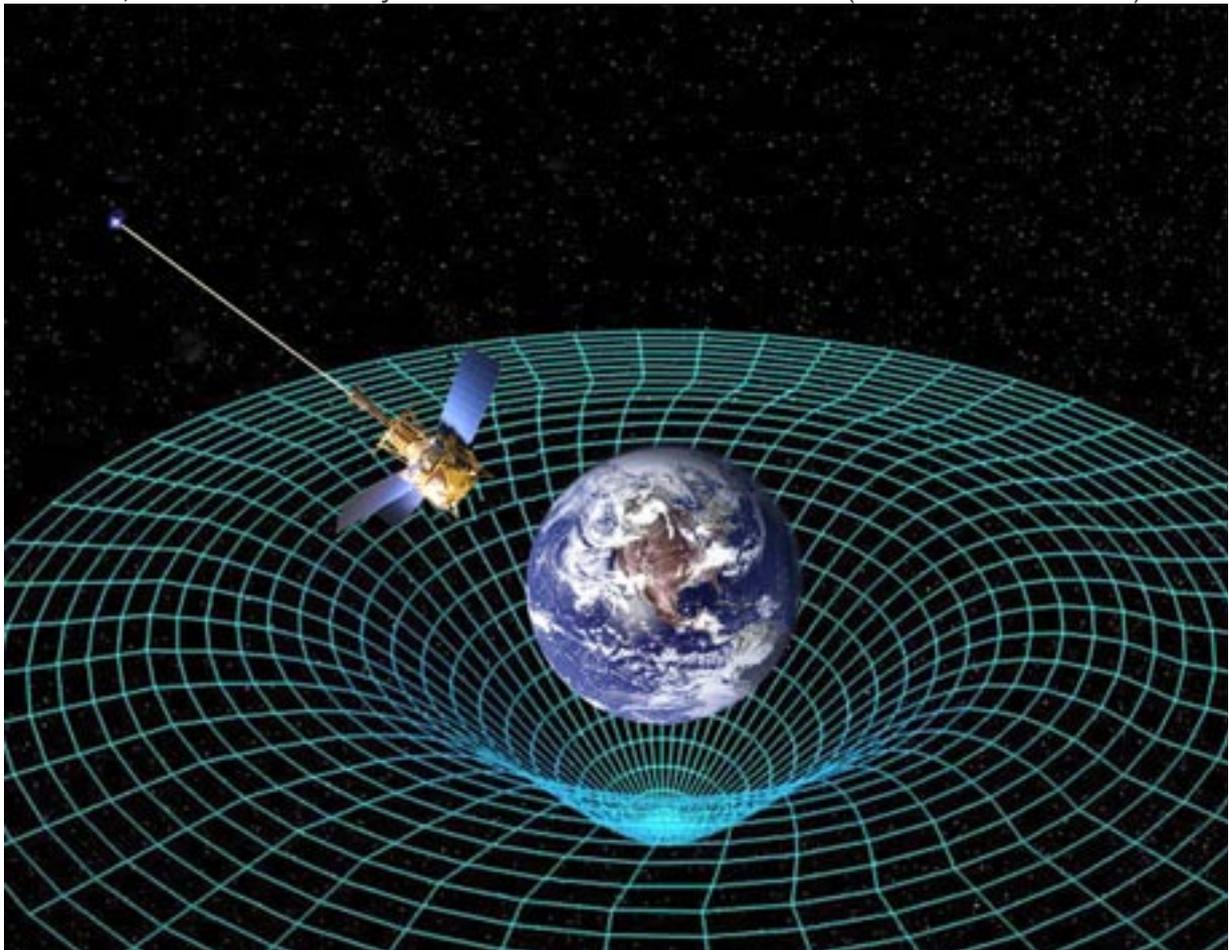
"Spazio Elastico" © Gianni Colombo

The effect on the viewer is drastically discomfort, dizziness sometimes, that is a reaction to an abnormal position sense, are the results. Although the room is in the physical sense remains constant, only the stretched coordinate system curved manifold, connect to such intense symptoms. The imaginary space that is created by the viewer is, in this case to image the real space: the illusion of space, which is pushing only a mapping and thus create even compartmentalization is the impression on this is with the visible and into spaces the same.

This mapping is that even imaginary and arbitrary, is to support our perception and,

as a deception. This is achieved by darkening the room, only further strengthened the focus is entirely on the illuminated coordinates. The space measure it refers to the remains, however dark and empty, just as we do from our view the concept of "space" are used to.

The walls of the actual physical space back so far into the background. Thus it creates Colombo to escape reality and the real space to replace him with those self-created concept of space, he can then formulate according to his actual ideas. But all this takes place not in the "Free space Elastico" beginning, quite the contrary, those rubber bands and motors are used only as tools of a manipulative charade, the real work only in the viewer even realize this ( [see also Bill Viola](#) ).



The earth curves the space-time, say, exerts a gravitational force (© [NASA](#) )

Although it can not be assumed that it was Gianni Colombo to the curvature of space-time along the lines of general relativity, but is "Spazio Elastico" is a tangible illustration of a basic physical fact that defies all of our perception. As in "Spazio Elastico" we are affected daily by curvature of space, be it by dropping a coffee cup or a strenuous climb stairs.

And yet the man is incapable of exercising these fundamental physical context and to integrate. It takes only illustrations and illusions, like those found in Colombo, to get a feel for what actually goes on around us is.

Linking him to some extent with Mariusz Sołtyś, which also makes visible and

tangible things that are usually reserved for our imagination, yet incomprehensible because not tangible are. But at one point, the two works presented differ: while Sołtysik with "neutrino trap stirring up cosmic dust" a representation is created which is in itself self-sufficient and for which the subjective perception is only an equivalent component, there is Gianni Colombo's Spazio Elastico "entirely as imagination.

One can therefore distinguish between an idea and a picture. Both depend on the perception of the viewer, but only one creates an impression that is so energetic and alive as he can only develop in an emotional, subjective process. Who would have thought that astrophysics can be so captivating?

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<http://www.castor-und-pollux.de/2010/05/jenseits-der-imagination/>

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