

# Orange String theories 2018/2019

*by Janine Thüngen-Reichenbach*



## CONCEPT

**Time**, in Rovelli's words, is "*part of a complicated geometry woven together with the geometry of space*".

The crux of **string theory** – although there are many competing versions – is that all particles can be viewed as **one-dimensional strings** on which the fundamental forces of nature (gravity, electromagnetism and so on) act as different modes of vibration. For reasons better explained in mathematics than words, the framework also requires there to be at least **six extra spatial dimensions**, in addition to **time** and the **three spatial ones of everyday life**

<https://www.theguardian.com/science/2017/jul/05/gravitational-waves-string-theory>

Reading about all these theories is one thing. Understanding them is another one, at least for me. But as an artist, I took the freedom of deconstructing and transforming these studies into forms that I could understand.

I constructed **3 times 6** scalene triangles of different sizes in iron



*In physics, string theory is a theoretical framework in which the point-like particles of particle physics are replaced by one-dimensional objects called strings. It describes how these strings propagate through space and interact with each other...* (Wikipedia)

I added my own elements to this theory:

- strings become triangular, a form based on art, history, and religion
- enlarging the strings to a size even humans can see them
- the triangles become scalene, giving the construction less security and certainty - it adds movement
- colouring the triangular strings fluorescent orange: orange combines the energy of red and the happiness of yellow. It is associated with joy, sunshine and light...
- the string triangles glow in the dark
- 6 different sizes for the **six** extra spatial dimensions
- constructing them 3 times, for **three** spatial dimensions of everyday life
- 6 different sizes for the **six** extra spatial dimensions
- constructing them 3 times, for **three** spatial dimensions of everyday life

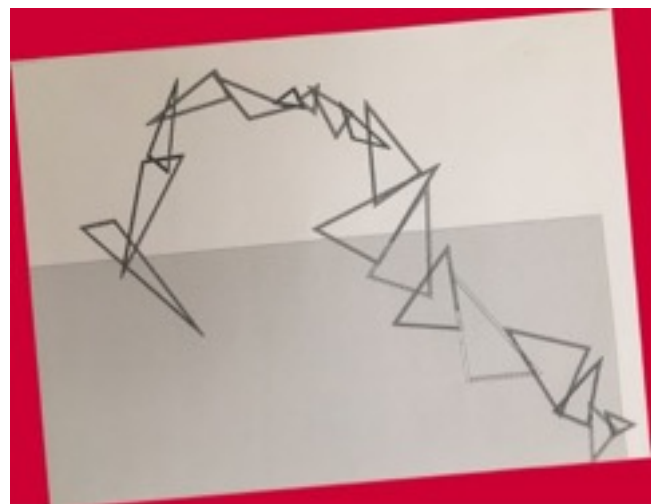




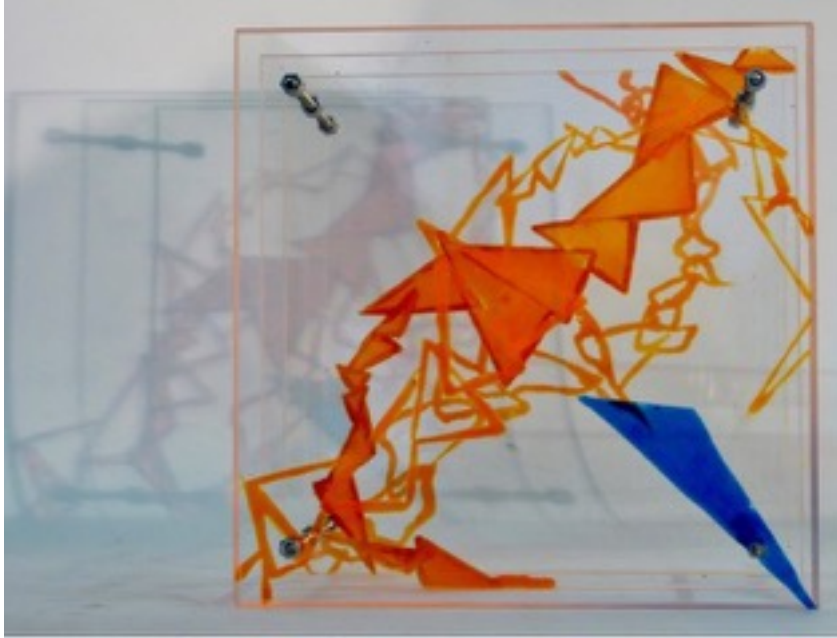
The 18 triangles are connected together like a child's 'steckspiel' (construction game), in order to propagate through space, interacting with each other



*ORANGE STRING THEORY 2019,  
18 scalene triangles in iron with fluorescent paint  
1,5m x 7 m x 3m*



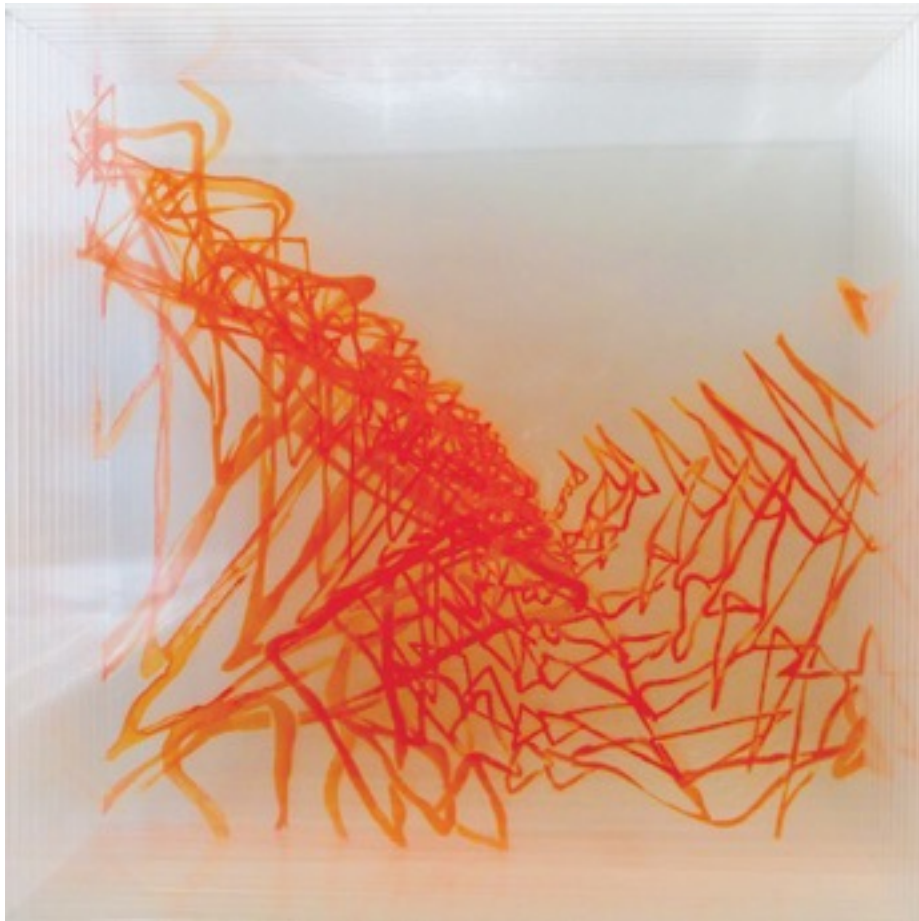
*3D ORANGE STRINGS WITH BLUE TRIANGLE, 2018*  
3 plexiglas sheets 3mm by 20cm x 20cm x 10 cm  
glass paint



These works contain a blue triangle. It represents the empty space, the element of discussion between the two giants of Aristoteles and Newton. The invisible space between objects is air - it looks like 'nothing' but is filled with what we need to breath (and more). We can't live in a vacuum. 'Air' is everywhere in our planet, it penetrates our body. Does air surround even the tiniest of particles, also known as 'strings'? Or is air to be found even inside these strings?

*BLUE GLASS TRIANGLE PENETRATES ORANGE 3D STRING, 2018*  
bronze, with fluorescent paint, blue murano glass  
19 cm x 47 cm x 34 cm





*The M-theory connects various discussions and perspectives on the string theory and collects them into 11 dimensions! So many dimensions are impossible for me to imagine. I started by placing the first dimension in the middle, with strings and straight triangles with pointed angles. All the other dimensions contain deformed strings. Growing bigger, out of their form. Or are they always the same but we perceive them differently? And it is this more philosophical question which interest me most...*



**11 DIMENSIONS M-THEORY OF ORANGE STRINGS,**  
2018

*plexiglass box with 11 plexiglass panels  
glass paint  
60 x 60 x 28cm*

