

# Spacetime Engineering

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## Abstract

Explanation of spacetime engineering, tailored for general audience. It will be supplemented by demonstrations of reversible elimination of inertial mass (REIM), posted at my YouTube channel by Christmas 2019.

It is my great pleasure to announce a major breakthrough in our understanding of the Universe: the Platonic theory of spacetime<sup>1</sup>. It is a new pre-geometric theory of spacetime, derived from first principles<sup>1</sup>. In a nutshell, the *atom of geometry* (dimensionless point that “has no part”, Euclid<sup>2</sup>) is endowed with non-trivial topology, structure, and dynamics, thanks to which we can tweak the state of physical systems, including living organisms, at fundamental level. This is spacetime engineering, based on the physics of life<sup>3</sup> (cf. [John’s jackets metaphor](#)). Let me focus here on the former.

Every scientific theory is expected to be [falsifiable](#) and to offer at least one prediction, which is (i) unique to the theory and (ii) verifiable by experiment and/or observation. It is preferable that the prediction shows a simple [algorithm](#) in the format ‘if A, then B’. Say, if we stroke cow’s head, she will *most likely* wave her tail. In our case, we suggest that if we permanently fix a new future potential state of physical systems, the latter will *most likely* change their dynamics to reach the new future state<sup>3</sup>, as depicted in the drawing below.



You only have to swing the carrot (*potential future*) toward your desired destination, and the [donkey](#) will carry you and the cart there.

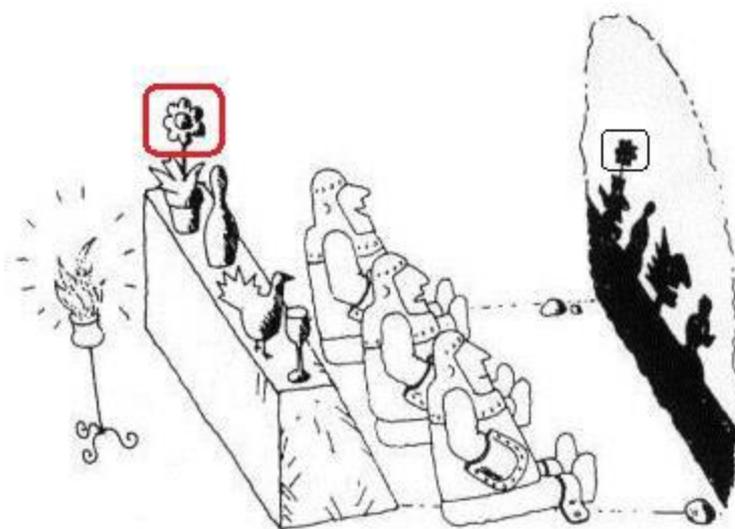
There are many issues related to the *potential future* (“carrot”), which need explanation<sup>3</sup>. I will do that by referring to my 2008 proposal for two *modes* of spacetime, local (physical) and global (Platonic *Res potentia*), based on the ideas of Plato, Aristotle, and Heraclitus

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(p. 11 in *Platonic Theory of Spacetime*<sup>1</sup>). The so-called local mode of spacetime pertains to 4D *physicalized* world of Platonic “shadows” (*ibid.*, p. 4) endowed with Archimedean topology (*ibid.*, p. 16), whereas the global mode of spacetime refers to the Platonic state of the entire Universe as ONE, dubbed *Res potentia* (*ibid.*, p. 33). It keeps the “carrot” shown [above](#) (dubbed ‘matrix’ on p. 10 in *The Physics of Life*<sup>3</sup>; see also pp. 7-10 [therein](#)). It is unphysical *pre-geometric* entity, resembling one single geometric point (cf. Euclid<sup>2</sup>) stretched to actual/completed infinity (p. 15 in *Platonic Theory of Spacetime*<sup>1</sup>). In a way, it wraps the local (physical) mode of spacetime (*ibid.*, p. 18) and, depending on the [direction](#) we look at the global mode from the physical world, it looks *both* infinitely small *and* infinitely large “boundary” of the 4D physical world.

Let me explain the arguments for Platonic *pre-geometric* global mode of spacetime, and the reason why it cannot be directly observed. Notice that the **red** Platonic flower below corresponds to the “carrot” in the drawing [above](#), but we cannot “turn around” and look at it. Why not? Because it is hidden by the “speed” of light (Slide 19 in *Quantum Spacetime*<sup>4</sup>). We can see only the *physicalizable* 4D “jackets” projected on the local (physical) mode of spacetime from/by the Platonic world. Example: quantum mechanics (QM)<sup>3</sup>.



See p. 11 in *Platonic Theory of Spacetime*<sup>1</sup>

Check out Slides 9-12 in *Quantum Spacetime*<sup>4</sup> and read again the explanation of Platonic matrix on p. 10 in *The Physics of Life*<sup>3</sup>. It is indeed impossible to explain the physical world without its *atemporal* Platonic source in the so-called global mode of spacetime. The latter is *always nullified* in the local mode (p. 30 in *Platonic Theory of Spacetime*<sup>1</sup>). We detect only its fleeting 4D “jackets”, as depicted in [John’s jackets metaphor](#).

The good news is that [human brain](#) can produce mental images (p. 8 and p. 11 in *The Physics of Life*<sup>3</sup>) from the Platonic matrix. This is the crux of spacetime engineering.

For example, reversible elimination of inertial mass (REIM). It’s not some supranatural “[magic](#)”. You only need to know the *origin* of inertia, the rest is a matter of learning: read pp. 41-43 in *Platonic Theory of Spacetime*<sup>1</sup> and watch the demonstration at this [http URL](#).

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## References and Notes

1. D. Chakalov, *Platonic Theory of Spacetime*. November 2018, 45 pages, at [this http URL](#).
2. C. Stover and E. Weisstein. "Point." From MathWorld – A Wolfram Web Resource. <http://mathworld.wolfram.com/Point.html>
3. D. Chakalov, *The Physics of Life*. 20 January 2019, 14 pages, at [this http URL](#).
4. D. Chakalov, *Quantum Spacetime*. 14 March 2017, 19 slides, at [this http URL](#).