

Platonic Theory of Spacetime

Der Herrgott würfelt nicht!



"I want to know God's thoughts; the rest are details."

In [Platonic theory of spacetime](#), Einstein's quest to know 'God's thoughts' is shaped as the quest to understand the 'thoughts' of *Platonic World* ([book.pdf](#)), the source of [matter and psyche](#) (p. 6 in [quanta.pdf](#)). In [practical terms](#), a new [natural science](#), nested at the interface of [life science](#), [psychology](#) and [physics](#), has been proposed: [spacetime engineering](#). It studies the [future states](#) of matter and psyche along the [arrow of Time](#), and offers a number of predictions (*Sic!*) about [new effects of gravity](#), such as REIM: read pp. 7-8 in [Modified Gravity](#) and pp. 7-8 in [canvas.pdf](#). My main report *Gravitational Wave Parapsychology* (pp. 18-20 in [GWP.pdf](#)) is ready to be [reviewed](#). The fake GW150914 was a **Big Dumb Dirty Lie** (p. 3 in [Spacetime Engineering 101](#)).

The Platonic theory of spacetime is my [counterproposal](#) to the speculative theories of the [human brain and its mind](#), suggested by many [prominent physicists](#). They utterly need [Mathematics](#) to understand [Time](#) and [gravity](#), and develop their [theory of quantum gravity](#). They will have to resolve *their unsolved problems*. The ball is in *their court*. Read 'the rule', [VL1](#), my [book](#), [the continuum](#), [Wolfram](#), [FI.pdf](#), [arrow](#), [Slide 1](#), [two modes](#), and [Force.pdf](#).

NB: My appeal is to [mathematicians](#), as we all need [Mathematics](#). Physicists are notoriously disinterested in any [new physics](#): read Max Planck from 1936 on p. 27 in [Newton.pdf](#). Besides, what if God is unique [mathematical object](#), thanks to which the 4D partition of the universe "flies" ([John A. Wheeler](#))?

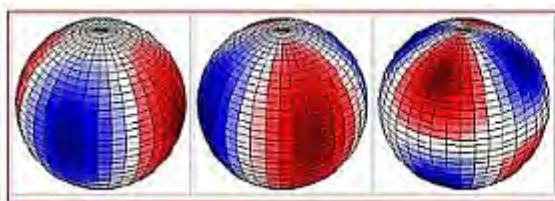
There is no "[negative mass](#)" nor "[spacetime curvature](#)" (Fig. G on p. 15 in [Newton.pdf](#)). There is no gravity in the [quantum world](#) nor "[dark energy](#)". I propose unique modifications of [quantum theory](#) and of [theory of relativity](#), thanks to which the two can be united into [quantum gravity](#) based on the Heraclitean [arrow of spacetime](#). The physical world is made of [light](#), which lives in the *atemporal* **Platonic world** (not in some "[vacuum](#)") and casts its "[shadows](#)" on the 4+**0** D spacetime as "[collapsed](#)" photons and [retarded light](#). The [problem of GR](#) is spelled out in [textbooks](#): the [energy from gravity](#). The [new dynamical geometry](#) of 4+**0** D spacetime not only reflects the [local](#)

relationship between geometry and matter, but also has a new additional *quasi-local* component from the *entire Universe*, which shows up as local *Fifth Force*. Hence the two *modes* of 4+0 D spacetime announced on 21 September 2008, and my two proposals from 4 September 1998 and 16 November 2021.

Read *The Fifth Force: Proof of Concept* and the reports [below](#). The force of Life is the force of Time: The Fifth Force. It (not "He") springs from the *Unmoved Mover* (p. 5 in *The Arrow of Spacetime*) and empowers the *arrow of causality*, *gravity*, and the *brain*. Read the essay on gravity [here](#) and the *balance* (not "conservation") of mass-energy [here](#). We need *quantum gravity* (read [below](#)) and *unlimited clean energy*. Check out my proposal for producing electricity [here](#) and the proof of concept at [Vimeo](#). The alternative project called *ITER* is destined to fail miserably. You just *can't fool Nature*.

Time and *gravity* are manifestations of the *fifth force*. The Platonic theory of spacetime is *not* some bi-metric gravitational theory of "two parallel universes with an opposite arrow of time" (*Wikipedia*). The 4D partition of the universe is "flying" along the *non-relational* arrow of Time (*arrow of spacetime*): you cannot look twice at the same river (*Heraclitus*). With light (p. 4 in *Time.pdf*), we see only the 4D physical universe in its irreversible past (*Q*): Time (*τ*) is *imaginary variable*. We cannot observe any "direction" (*W*) of the *non-relational* arrow of Time driven by the *fifth force*. We only see the *self-acting* 'glove' (pp. 7-9 in *Spacetime Engineering 201*) and only *once-at-a-time*. Only matter *interacts* with matter; the spacetime itself *does not* have any mass-energy. The work is done by the *self-acting* dressed 'glove' endowed with *fifth force*. Read again about the two *components* of Time [here](#). The *self-acting* *fifth force* solves the problems of *quantum reality* and "dark energy" *en bloc*.

My name is Dimitar G. Chakalov (pronounced *tcha-KA-lov*). I am the founder of *spacetime engineering*. It is a new field of natural science, nested at the interface of *life science*, *psychology*, and *physics*. It studies and explores our ability to control all *physical systems* by altering their *future state*, as they evolve along the arrow of Time. I believe have discovered the *force of Life* (氣) in physics and cosmology, ensuing from the principle of quantum theory (*Erwin Schrödinger*). We need the *hyperimaginary numbers* and new *mathematics*. As a warm up, try to prove *space-orientability*. Or use your skills to explain how *gravity* produces *work*, for example, in *Earth tides* by (*longitudinal?*) GWs. My theory of *non-linear* gravitational radiation (nothing to do with *LIGO*) is based on the proposal by Sir Arthur Eddington from 1920, and explains the fake "GW 170817" from the outset.



If GWs transport energy, they will be *physical waves*; if GWs *cannot* transport energy, they will be some *parapsychological ghosts*. This is the dilemma in *GW parapsychology*.

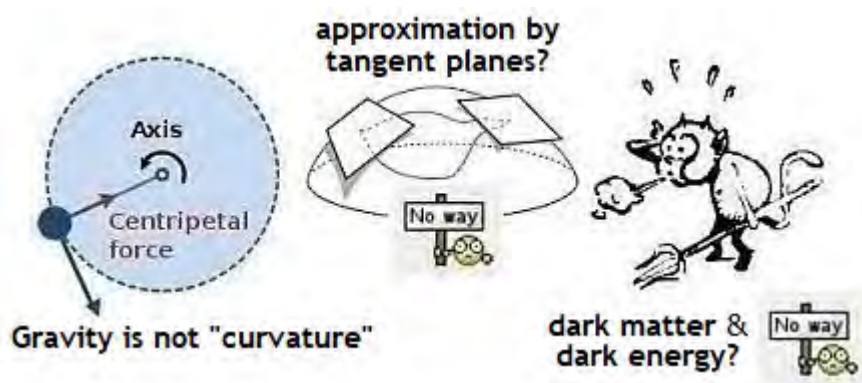
NB: Spacetime engineering is not some "magic". Any *sufficiently advanced* technology (see [here](#)) is indistinguishable from "magic" (*Arthur C. Clarke*). If you are not interested in quantum gravity and cosmology, and only wish to be entertained, watch *Chinese acrobats*, Wang Yifeng (Yif) and his *British colleague*. Or have a *drink instead*.

Download this webpage ([frontpage.pdf](#)) and the entire website in a zip file (95,315,716 bytes), and unpack it on your hard drive/cloud. Read here: *The Fifth Force* (Force.rar, 24,736,470 bytes),

[The Arrow of Spacetime](#) (23 June 2022),
[The General Rule \$1 + 0 = 1\$](#) (30 April 2022, 6 pages),
[The Bridge](#) (27 March 2022, 5 pages),
[Spacetime Engineering 201](#) (6 January 2022, 13 pages),
[Where Does Knowledge Come From?](#) (17.11.2021, 9 pages),
[Notes on Spacetime Engineering](#) (24.09.2021, 31 pages),
[What will be the fate of spacetime engineering?](#) (2.09.2021, 1 page),
[Note on Physical Theology](#) (30.08.2021, 1 page),
[The Physics of Life](#) (25.08.2021, 28 pages),
[Quantum of Spacetime: Zenon Connection](#) (25.04.2021, 26 pages),
[Experimental Tests of Spacetime Engineering](#) (8.01.2021, 15 pages),
[Is There Gravitational Energy?](#) (28.12.2020, 10 pages),
[Can Penguins Drink Warm Water?](#) (24.07.2020, 11 pages),
[Can Geometry Produce Work?](#) (21.06.2020, 48 pages),
[Quantum Spacetime](#) (14.03.2017, 20 slides),
[Über Die Gravitationsfeldrelativitätstheorie](#) (20.03.2020, 16 pages),
[Gravitational Energy](#) (22.02.2020, 13 pages),
[How to Bind Matter to Matter?](#) (5.02.2020, 6 pages),
[Brain-Controlled Cold Plasma](#) (27.11.2019, 28 pages),
[Time and Continuum: Zenon Manifold](#) (15.08.2019, 31 pages),
[The Physics of Life: Flipping a Quantum Coin](#) (20.01.2019, 14 pages),
[Spacetime Engineering](#) (2.04.2019, 16 pages), and
[Platonic Theory of Spacetime](#) (10.02.2019, 46 pages).

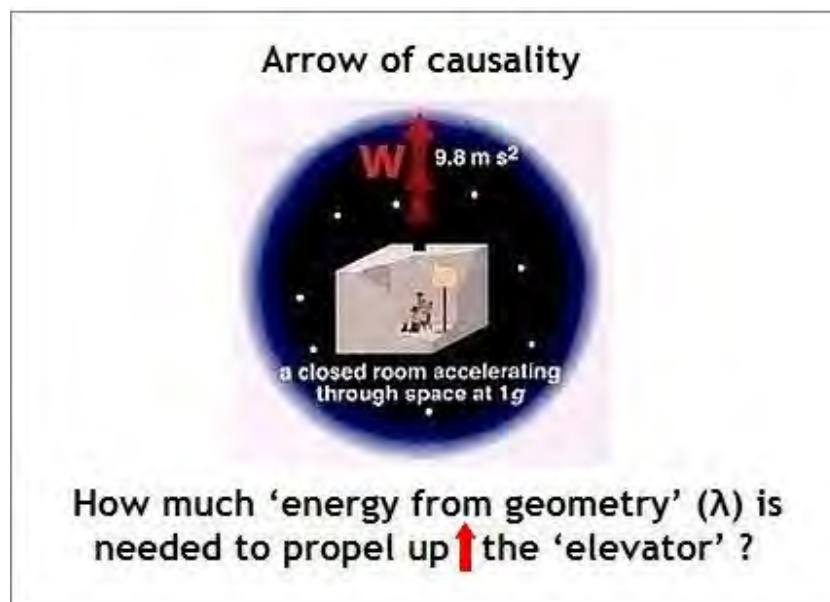
Regarding [GW parapsychology](#), read [Kip Thorne](#) and examine the bold **facts** at pp. 1-6 in *The so-called GW150914 is **FRAUD*** and pp. 28-31 in *Notes on Spacetime Engineering*. Forget [GW parapsychology](#).

GR is still a [work in progress](#), at best. Try to count the factual errors in G.F.R. Ellis' speculations [here](#) and [here](#), and in my [essay on gravity](#).



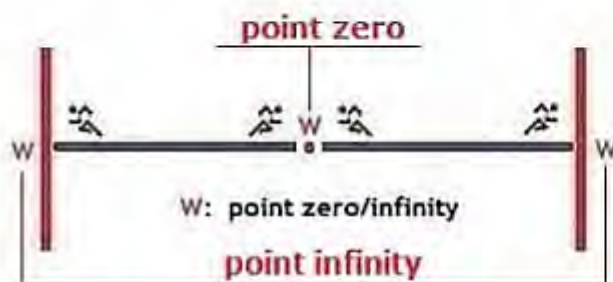
NB: In the current mathematical models of 4D spacetime, the spacetime manifold is neither **time-orientable** nor **space-orientable**. That's a fact. It makes the [arrow of causality](#) some kind of "supernatural magic". In GR textbooks (MTW p. 467), there is no *dynamics* of spacetime: "nothing ever moves therein; nothing happens; nothing changes" ([Bob Geroch](#)). If that was true, Nature must use some occult "[dark energy](#)" to create the [cosmological time](#). The so-called "[dark energy](#)" is sheer [parascience](#). It is just pathetic, like the mythical "[Higgs boson](#)": why is the universe larger than a football? There's no answer from the reputed [academic scholars](#).

The only possible solution is the [Fifth Force](#) in RS spacetime.



Recall the dynamical *balance* of mass-energy [here](#). Regarding the dynamics and topology of **4+0 dimensional spacetime**, manifested in the arrow of Time (*arrow of spacetime*), read the excerpt below (p. 24 in *Notes on Spacetime Engineering*).

24



The Universe is like an unbroken ring with no circumference, for the circumference **W** is nowhere, and the center **W** is everywhere.

Fig. E. Read closely p. 18.

No "spacetime curvature".

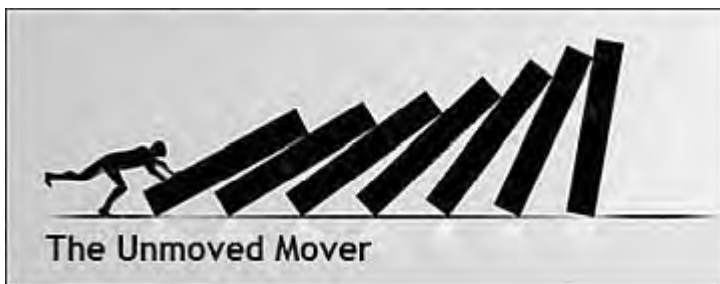
It **wraps** the spacetime both "beyond" future null infinity and "inside" every 4D instant here-and-now: split the photon to "see" it (Fig. 4).

God ([John 1:1](#); [1 John 4:8](#)) exists at **point zero/infinity** (AAS), in line with the doctrine of *trialism*. This is my approach to [quantum gravity](#), [physical theology](#), and [spacetime engineering](#). Notice that I am interested *only* in the new [hyperimaginary numbers](#), which may offer solutions to various problems in [number theory](#), [point-set topology](#) (Wolfram), and [set theory](#). Any issue, which is not directly related to the [hyperimaginary numbers](#), will be ignored.

On a different note: Three years ago, on 15 March 2021, I suggested a new hybrid EU currency **GULDEN** (GLD) and sent [ECB_Gulden.pdf](#) to the European Central Bank (ECB) and to many financial experts. The detailed proposal is available upon request. We must protect the Euro from the crash of US dollar ([Willem Middelkoop](#)), which may be seven to ten years away. Or perhaps *much* closer, as we are now dragged into severe dogfights with [Hitler Putin](#).

D. Chakalov
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 Winners don't quit and quitters don't win.

29 February 2024, 20:58 GMT



The Arrow of Spacetime

The arrow of spacetime suggests non-trivial topology of spacetime by incorporating a Platonic *atemporal* phenomenon “outside” 4D spacetime, dubbed **matrix** (p. 4). The local properties of matter and fields are bundled with the global properties of the spacetime *en bloc*, following the rule ‘think globally act locally’. Hence the entire Universe is animated by the **Unmoved Mover** and the **fifth force**, and is modeled as a **brain**.


DOWNLOAD 

[Heraclitus.pdf](#) (14 pages), [news_tensor.pdf](#) and [time-direction.pdf](#)
23 June 2022

**MAY THE FORCE
BE WITH YOU**

The Fifth Force

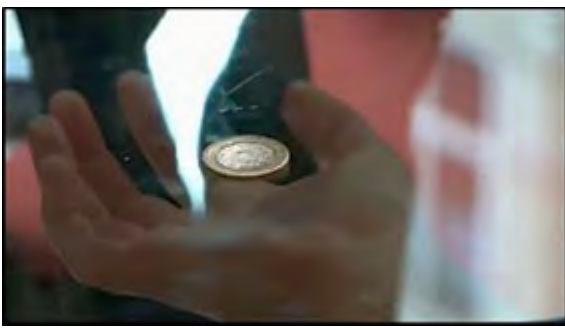
The **living force**, known as Ki (気), is the **fifth** fundamental force of Nature. It (not “He”) empowers all living organisms, quantum and gravitational systems, and the **4D world**. It is grounded on Aristotle’s **Unmoved Mover**.

DOWNLOAD 

[video.pdf](#), 8 pages. Also [talk.pdf](#) and [RS.pdf](#).
23 June 2022

Macroscopic quantum tunneling

vimeo.com/663803238



Notice at [00:30](#) the distinctive 'click' from the metal coin trespassing the glass table, which requires [energy](#). Here the academic scholars go blindly into [denial](#) and ignore this anomalous experimental fact, along with many [similar ones](#). But they are only [the tip of the iceberg](#).

What are the basic building blocks of the universe?
What are the forces by which they interact with one another?
Why is the universe larger than a football ?



Dedicated to 138th birthday of Albert Einstein, 14 March 2017



Regarding Slides 10 and 15, check out Ivo van Vulpen at [this http URL](#):
"Why is the universe larger than a football ?"

D. Chakalov, March 14, 2017, 00:51 GMT

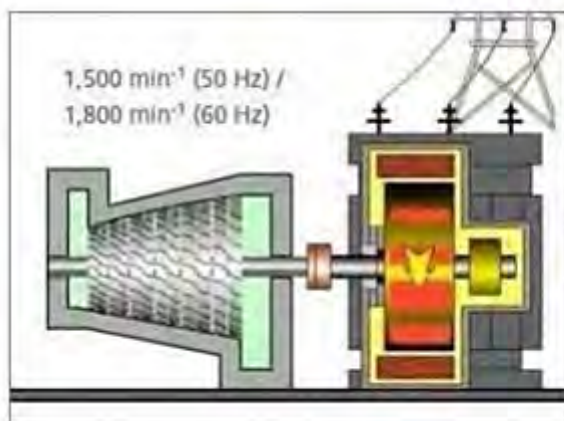
If you have questions about the [fifth force](#) and my experimental work, follow strictly the instructions (1)-(2)-(3) at p. 5 in [explanation.pdf](#). First things first. Then I will gladly upload the 'proof of concept' from my Google Drive to Vimeo and send you the link. Read p. 8 in [The Fifth Force](#).



The Fifth Force: Proof of Concept

Recall that on [17 August 2017](#), 70 observatories detected EM radiation (gamma-ray bursts), which could have originated from the *gravitational Fifth Force* propagating in **mixed** (longitudinal and transverse) modes, like the *quasi-local holomovement of fish* (forget GWs). If true, it might be possible to *create* (Sic!) mass-energy and transport it *quasi-locally* with gravitational **quasiparticles**. I believe can suggest a new path to **quantum gravity** based on experiments and observations, similar to the "anomalous" fact that stones can fall from the sky (p. 4 in *The Fifth Force*). My proposal for producing unlimited electricity is [here](#) (compare it to [30 May 2002](#)). *What more do you need?*

NB: If I am on [the right track](#), there will be no need to [burn coal or gas](#) to produce electricity, nor to build new **nuclear plants** to reach **carbon neutrality in 2050**. We may have it by **2030**. **Time is running out!**



My urgent proposal for producing unlimited electricity is based on **gravitational rotation**, as gravity can rotate a **whole galaxy en bloc**. Just spin the **steam turbine rotors** in the power plants with spacetime engineering. No need for water supply, heat, **coal**, nor hazardous **nuclear fuel**. We won't need **ITER** either. Is this possible? **Why not?**

Meanwhile, the gigantic pathetic enterprise called **ITER** is slowly moving toward its dead-end, like a **multi-billion euro Titanic**. Nobody is interested in the **force of gravity** (p. 5): watch a clip [here](#) and recall the problem of energy in GR [here](#). There's none so deaf as those who **will not hear**.

How time **slows down** in attractive gravity (p. 5 in [text.pdf](#)) in order to keep the "speed" of light **constant**? Read **NB** on p. 5 in *RS Spacetime*.

Again, the **origin of gravity** is the same **global phenomenon** assembling the **Small and the Large**, only applied *locally*. We have attractive gravity from the local **fifth force** that **shrinks** the metric, and **repulsive gravity** from the local **fifth force** that **inflates** the metric *without* any "expansion" from some mythical supernatural "**dark energy**".

What is green, lives underground, has one eye, and eats stones?

The green, underground, one-eyed, stone-eating Monster!

If you prove with meticulous scientific observations that the stones in your area have been disappearing, you may be awarded Nobel Prize in Physics as well. You only have to use math to "prove" that the green, one-eyed, and stone-eating Monster does exist. Of course, it cannot be directly observed, because it lives underground. Which is why it does not emit nor reflect light.

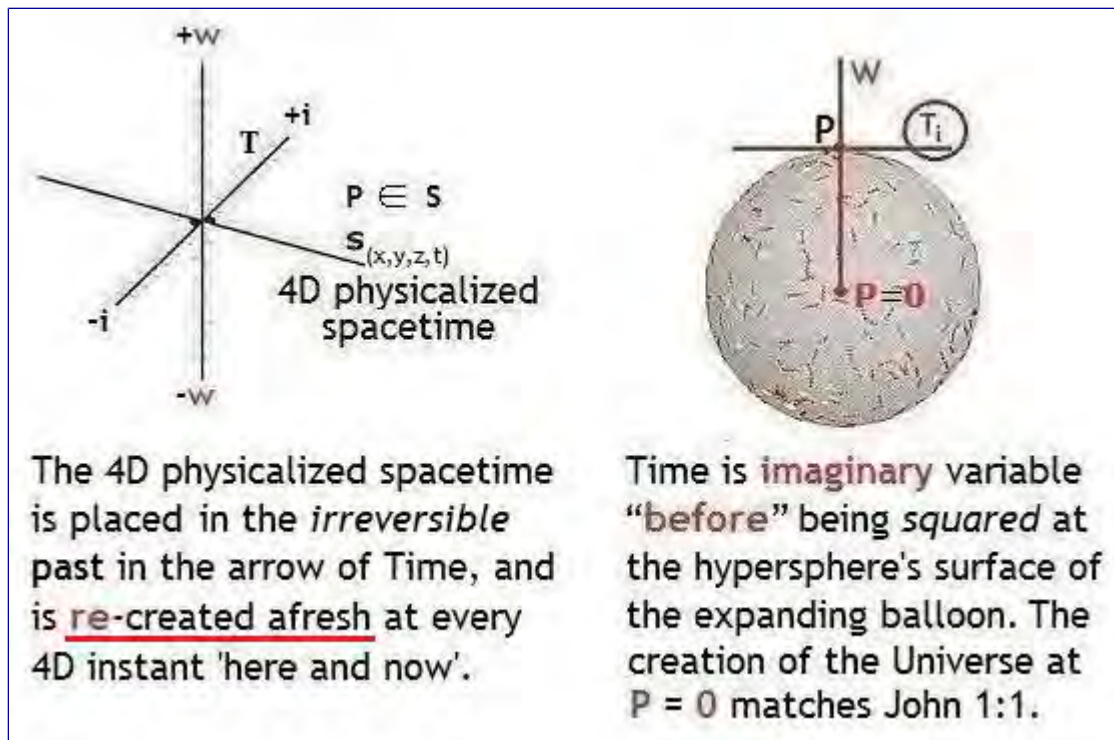
NB: Again, there is no "negative mass". There is no gravity in the quantum world. I propose unique modifications of quantum theory and of theory of relativity, thanks to which the two can be united into quantum gravity based on the arrow of spacetime. The physical world is made of light, as light lives in the atemporal Platonic world (not in "vacuum") and casts its "shadows" or "jackets" in the 4+0 D spacetime as "collapsed" photons and retarded light. This is how the 4D partition of the universe "flies" (John A. Wheeler).

But nobody cares, including the experts in climate change. Read here:

<https://chakalov.net/demo.pdf>
https://chakalov.net/modified_gravity.pdf
<https://chakalov.net/curvature.pdf>
https://chakalov.net/video_101.pdf
<https://chakalov.net/GWP.pdf>
<https://chakalov.net/quanta.pdf>
<https://chakalov.net/jackets.png>
<https://chakalov.net/canvas.pdf>
<https://chakalov.net/waves.pdf>
<https://chakalov.net/book.pdf>
<https://chakalov.net/FI.pdf>
<https://chakalov.net/arrow.jpg>
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<https://chakalov.net/SEM.pdf>
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<https://chakalov.net/Dao.pdf>
<https://chakalov.net/Newton.pdf>
<https://chakalov.net/text.pdf>
https://chakalov.net/p_10.jpg
https://chakalov.net/two_modes.jpg
<https://chakalov.net/donkey.png>
<https://chakalov.net/sampler.jpg>
https://chakalov.net/Slide_1.jpg
<https://chakalov.net/matrix.jpg>
https://chakalov.net/p_12.jpg
https://chakalov.net/p_3.jpg
<https://chakalov.net/history.pdf>
<https://chakalov.net/video.pdf>
<https://chakalov.net/rule.pdf>
<https://chakalov.net/talk.pdf>
<https://chakalov.net/RS.pdf>

My latest video about the Fifth Force, announced on 23 June 2022, demonstrates the proof of concept: *The Fifth Force: Proof of Concept* (link upon request); text [here](#).

For a historical outlook, read Albert Einstein from November 1918 (*Die Naturwissenschaften* 48 (1918) 697-702, S. 700): "Man kann deshalb weder sagen, das Gravitationsfeld an einer Stelle sei etwas "Reales", noch es sei etwas "bloß Fiktives". Nature is made of both physical world in the irreversible past and Platonic reality in the potential future "just in the middle between possibility and reality" (Werner Heisenberg). The Platonic reality shows up in the physical world as 'Platonic hand in a 4D glove' ([matrix.jpg](#)). Read p. 2, p. 15, and pp. 17-20 in [talk.pdf](#). Then comes the doctrine of trialism based on the proposal by Leibniz about the common source of matter & psyche (dubbed "trunk"): the monad without windows. Read *How to Bind Matter to Matter* [here](#) and click [matrix.jpg](#) below.



Do you need help to understand the *two modes* of $4 + \textcolor{red}{0}$ D spacetime and learn *spacetime engineering*? Read the first paragraph *above* and the instructions in [SEM.pdf](#). The scope of spacetime engineering is to avoid the upcoming *climate crisis*. Time is *running out*!

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 (pronounced *tcha-KA-lov*)
<https://chakalov.net/book.pdf>
<https://chakalov.net/VL1.pdf>

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 Latest update: 29 February 2024, 20:58 GMT