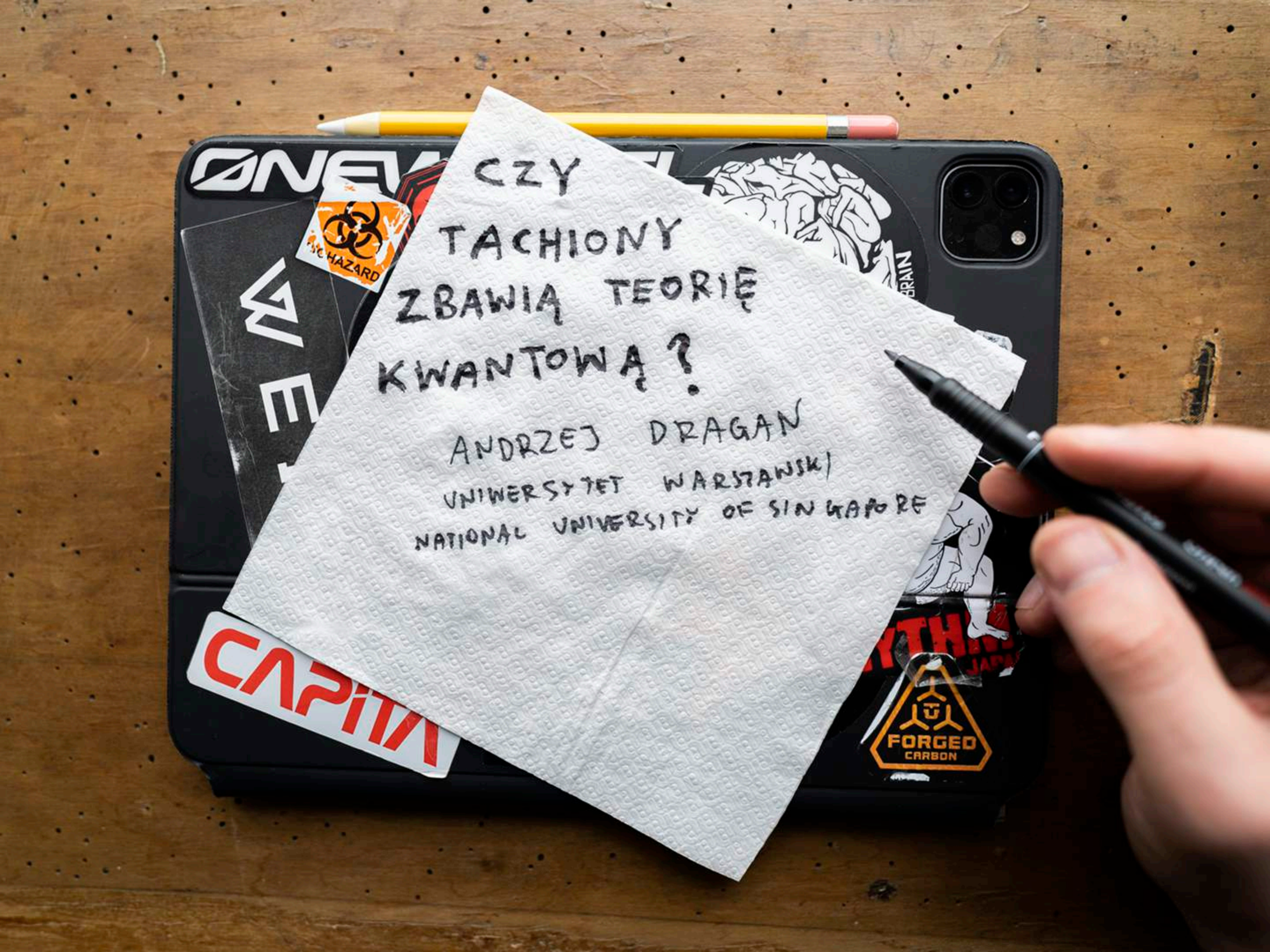
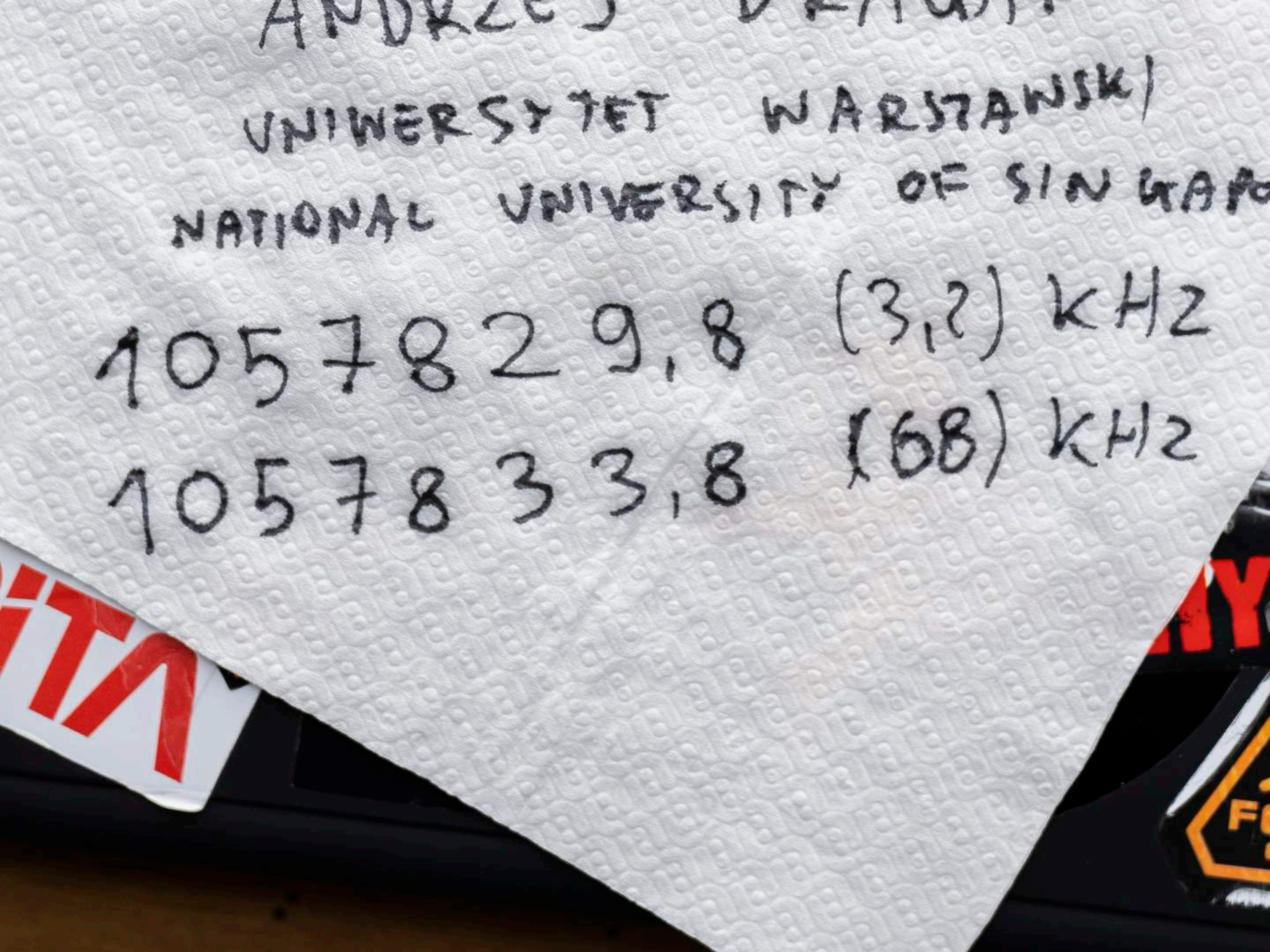

ONEAL
BIOHAZARD
CAPITA
BRAIN
JAPAN
FORGED CARBON

CZY TACHIONY ZBAWIĄ TEORIĘ KWANTOWĄ?

ANDRZEJ DRAGAN
UNIWERSYTET WARSZAWSKI
NATIONAL UNIVERSITY OF SINGAPORE



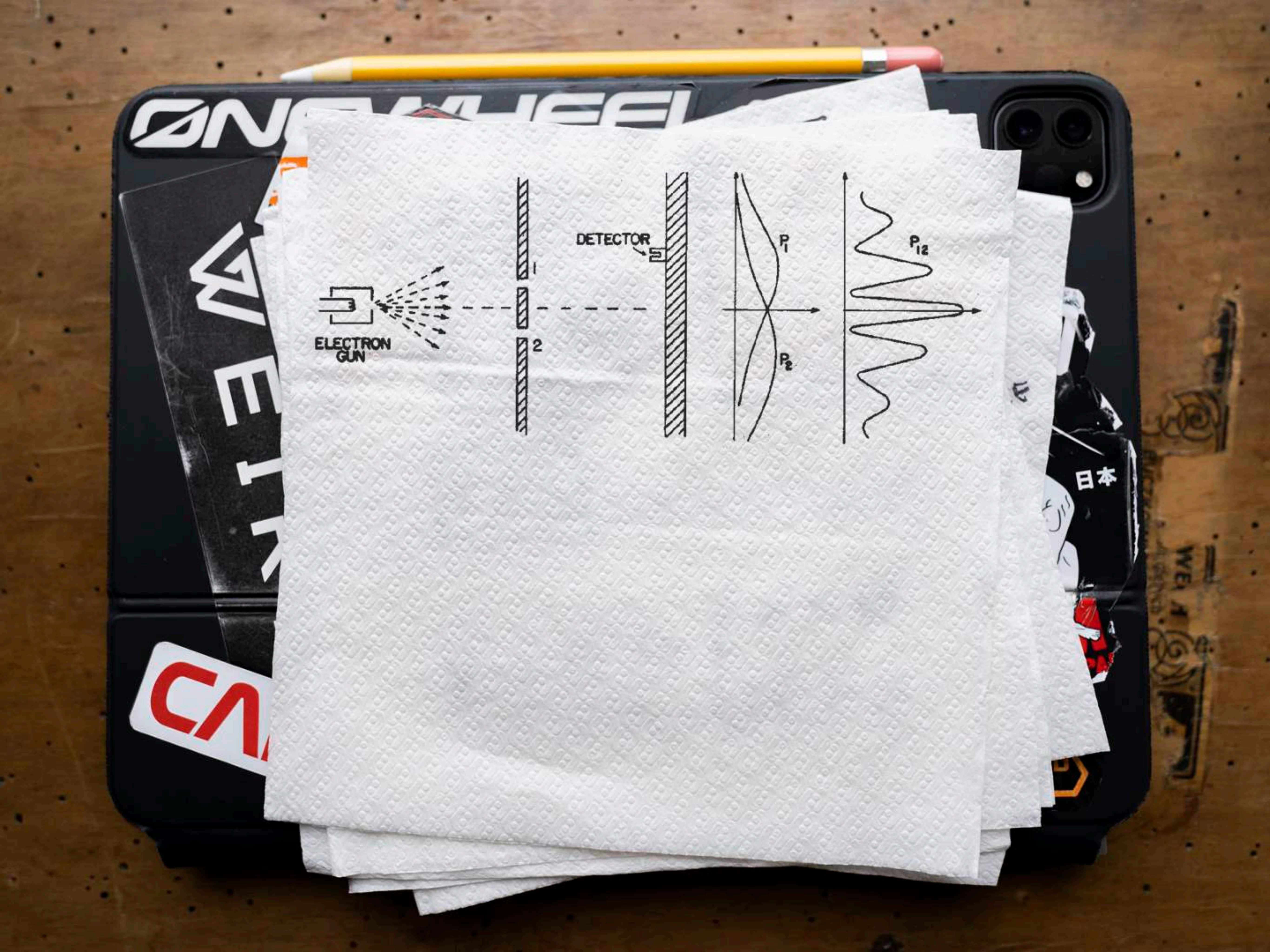
ANDRZEJ DRAGAN

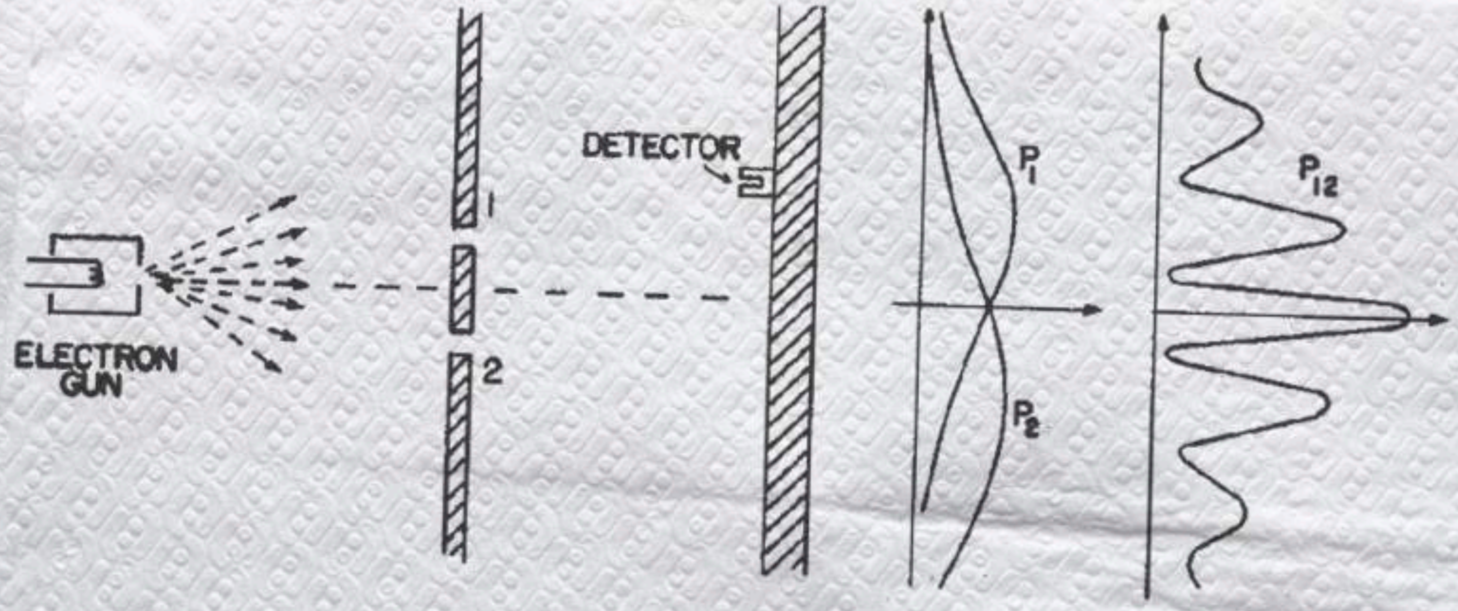
UNIWERSYTET WARSZAWSKI

NATIONAL UNIVERSITY OF SINGAPO

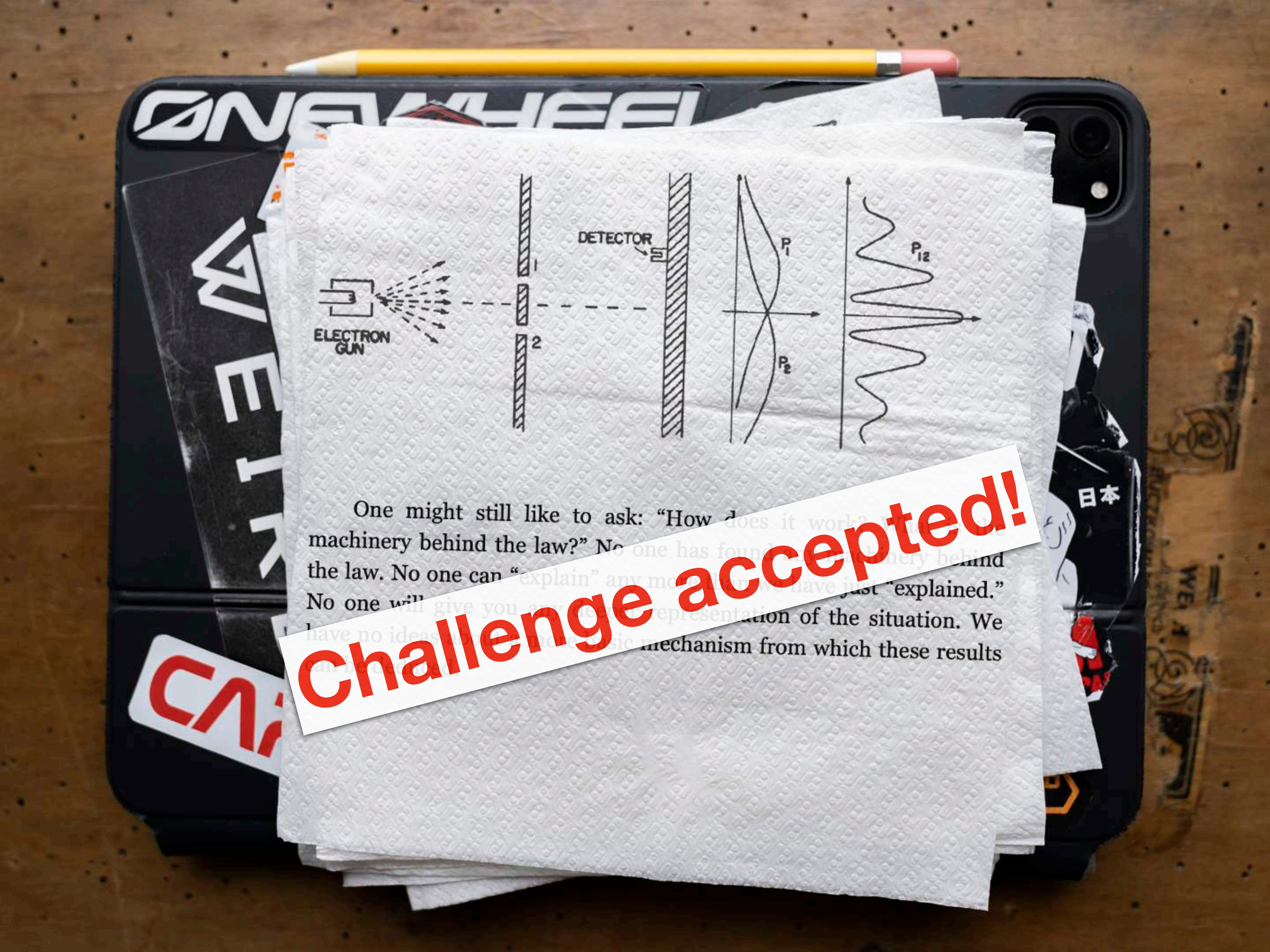
1057829,8 (3,2) kHz

1057833,8 (68) kHz


DETECTOR
ELECTRON GUN
1
2
P_1
P_2
P_{12}

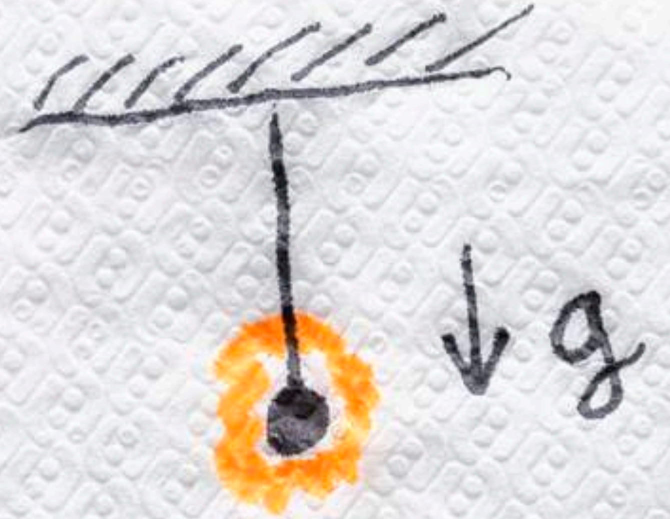


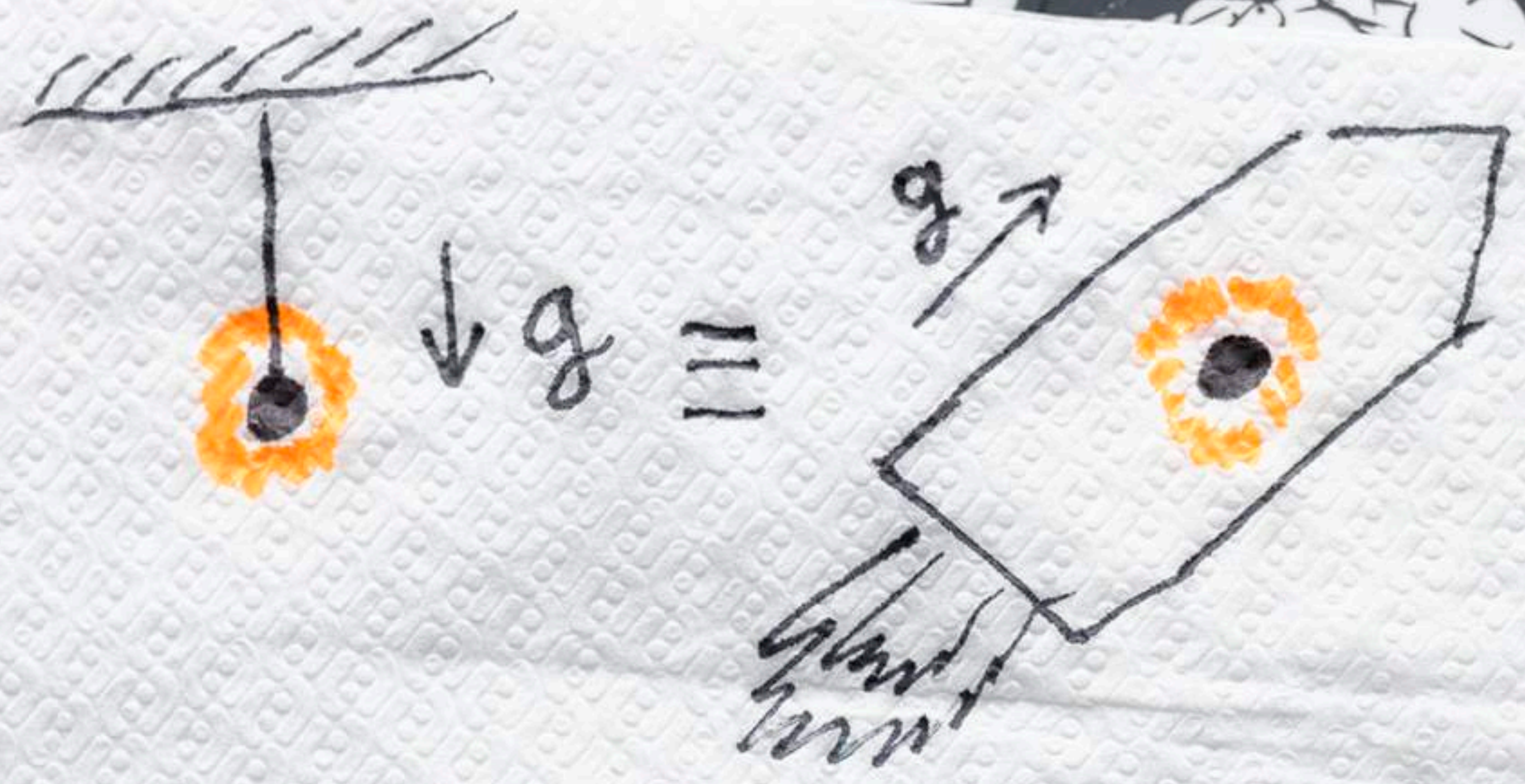
One might still like to ask: "How does it work? What is the machinery behind the law?" No one has found any machinery behind the law. No one can "explain" any more than we have just "explained." No one will give you any deeper representation of the situation. We have no ideas about a more basic mechanism from which these results can be deduced.

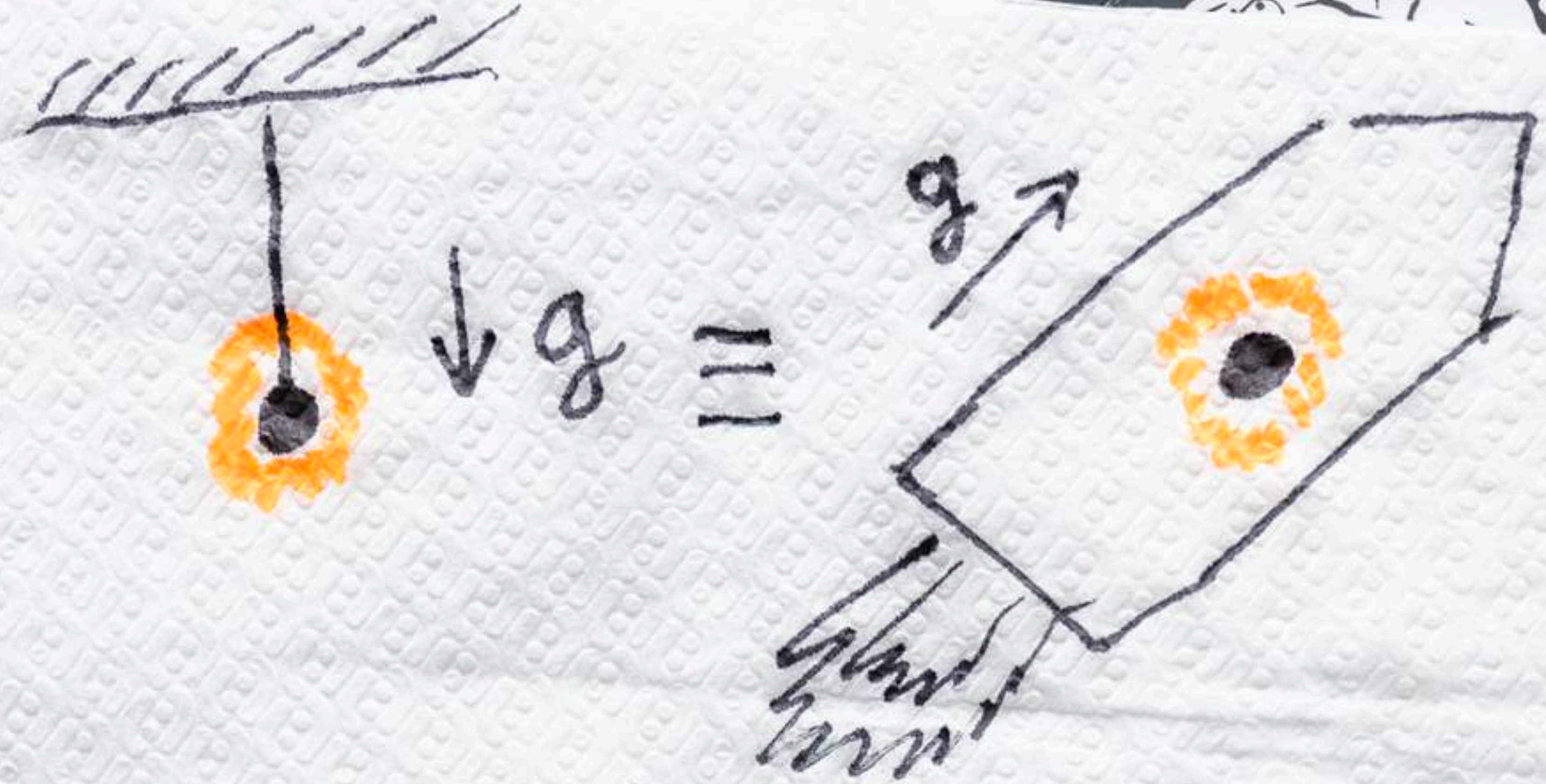

ELECTRON GUN
DETECTOR
1
2
P_1
P_2
P_{12}

One might still like to ask: “How does it work? What is the machinery behind the law?” No one has found any machinery behind the law. No one can “explain” any more than we have just “explained.” No one will give you any deeper representation of the situation. We have no ideas about a more basic mechanism from which these results can be deduced.

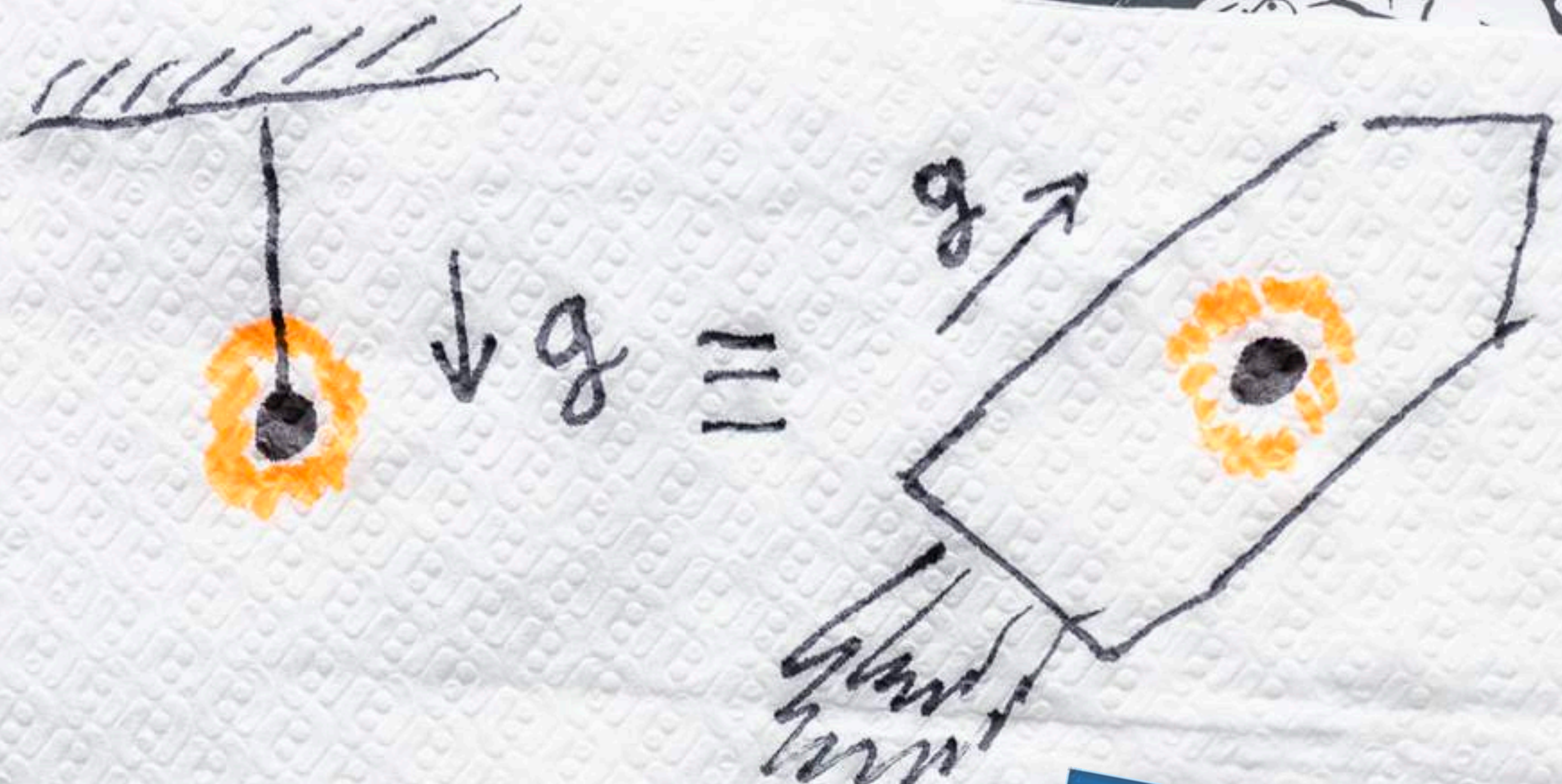
Challenge accepted!


g

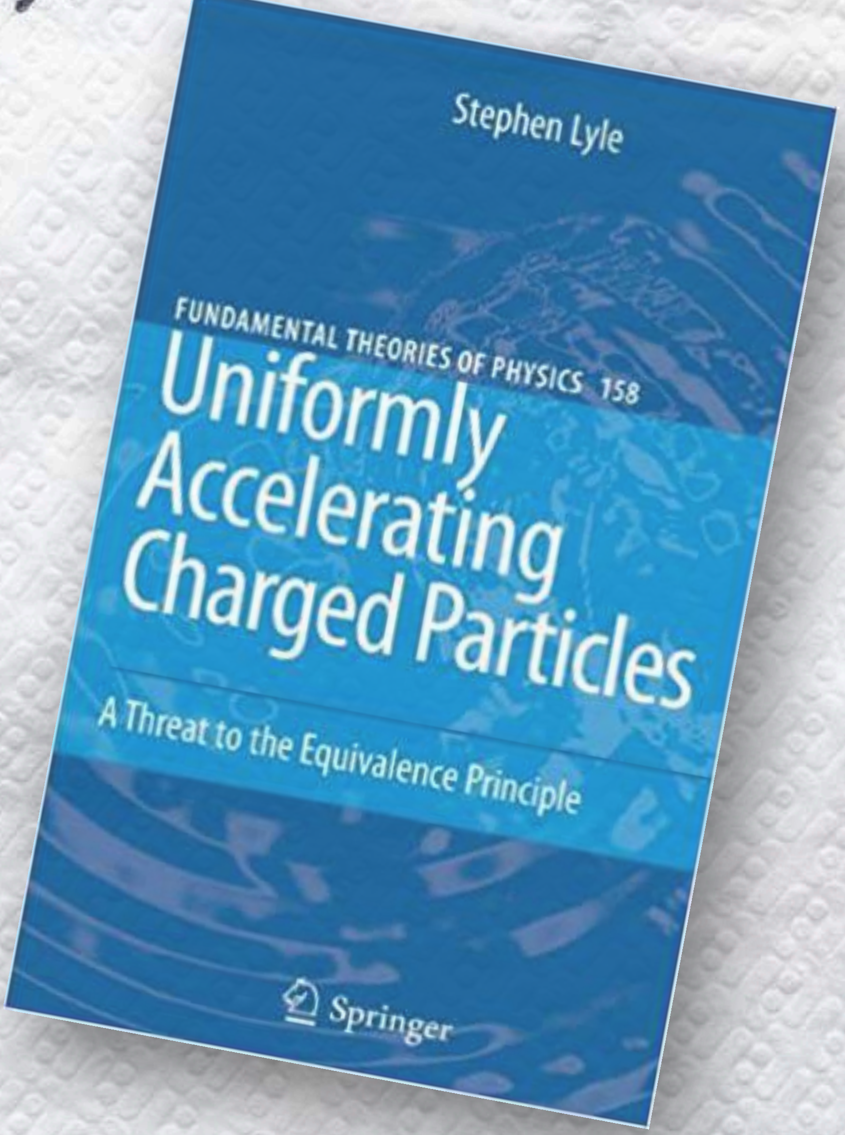

↓g
≡
g



BORN
BONDI
FEYNMAN
PAULI
ROHLICH
PEIERLS
BOULWARE



BORN
BONDI
FEYNMAN
PAULI
ROHLICH
PEIERLS
BOULWARE



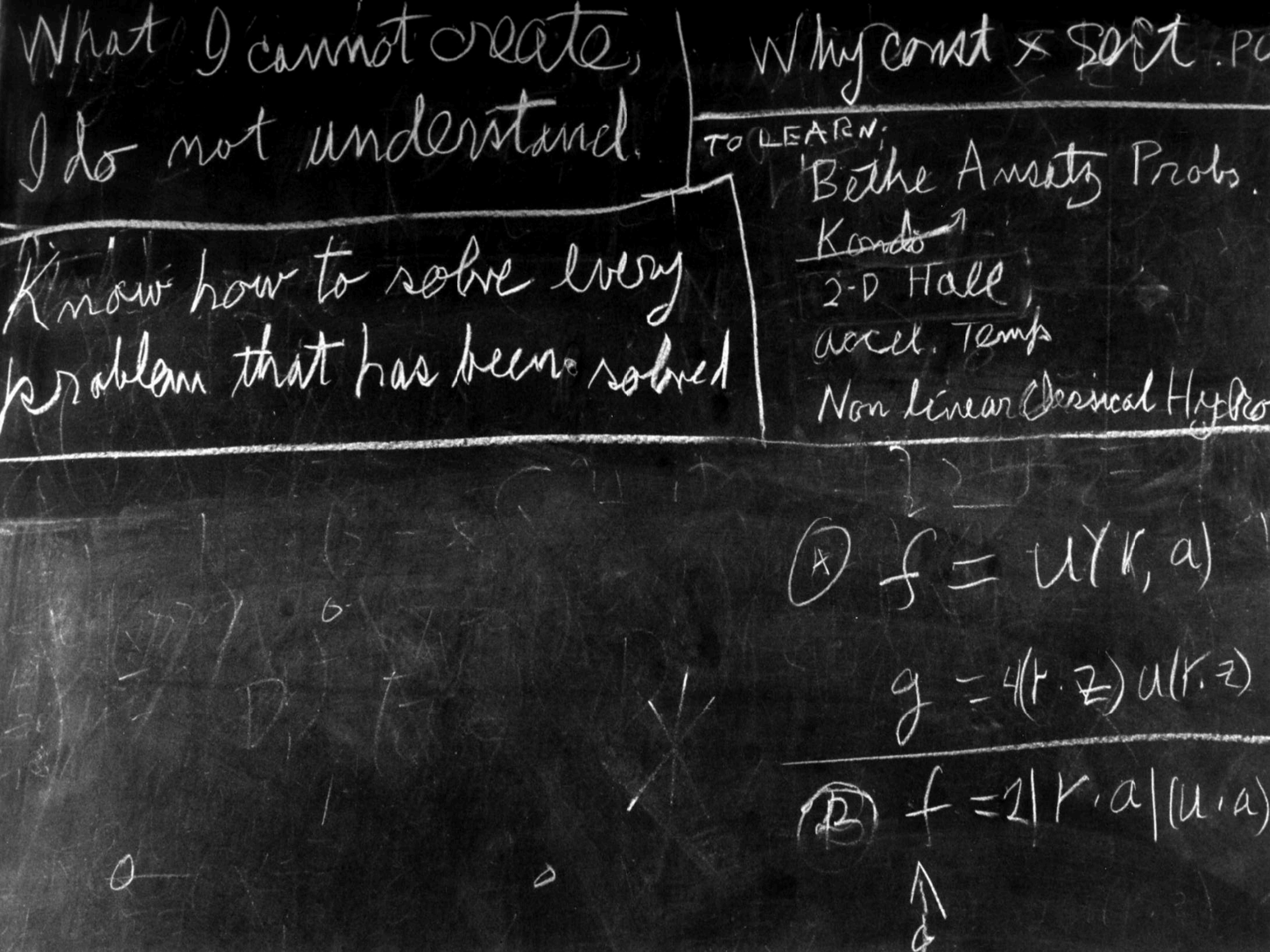
Stephen Lyle

FUNDAMENTAL THEORIES OF PHYSICS 158

Uniformly Accelerating Charged Particles

A Threat to the Equivalence Principle

Springer



What I cannot create,
I do not understand.

Why const × sort .PC

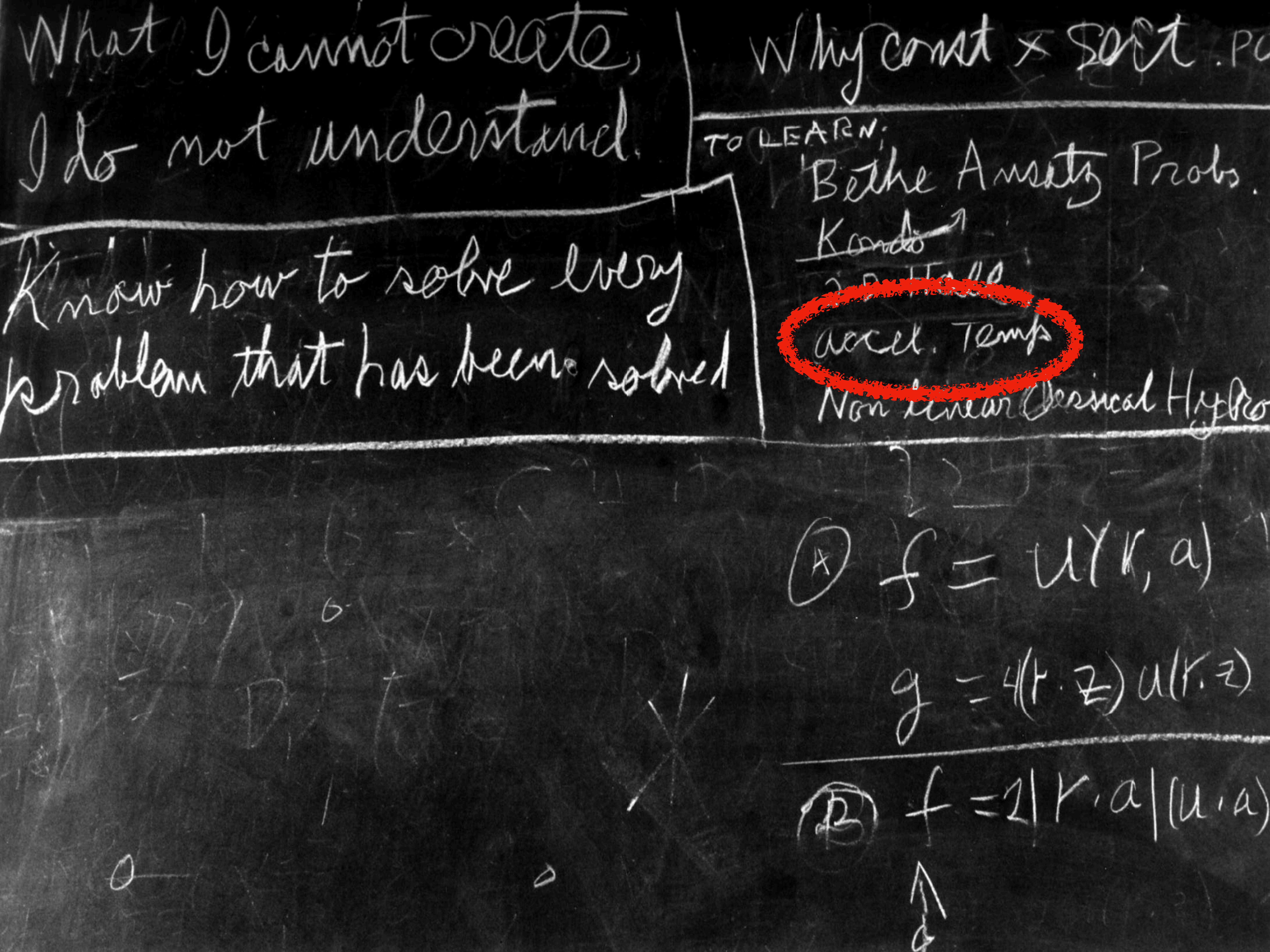
TO LEARN:
Bethe Ansatz Probs.
Kondo
2-D Hall
accel. Temp
Non linear Classical Hydro

Know how to solve every
problem that has been solved

Ⓐ $f = u\,r(r, a)$

$g = 4(r \cdot z)\, u(r \cdot z)$

Ⓑ $f = 2|r \cdot a|(u \cdot a)$



What I cannot create, I do not understand.

Know how to solve every problem that has been solved

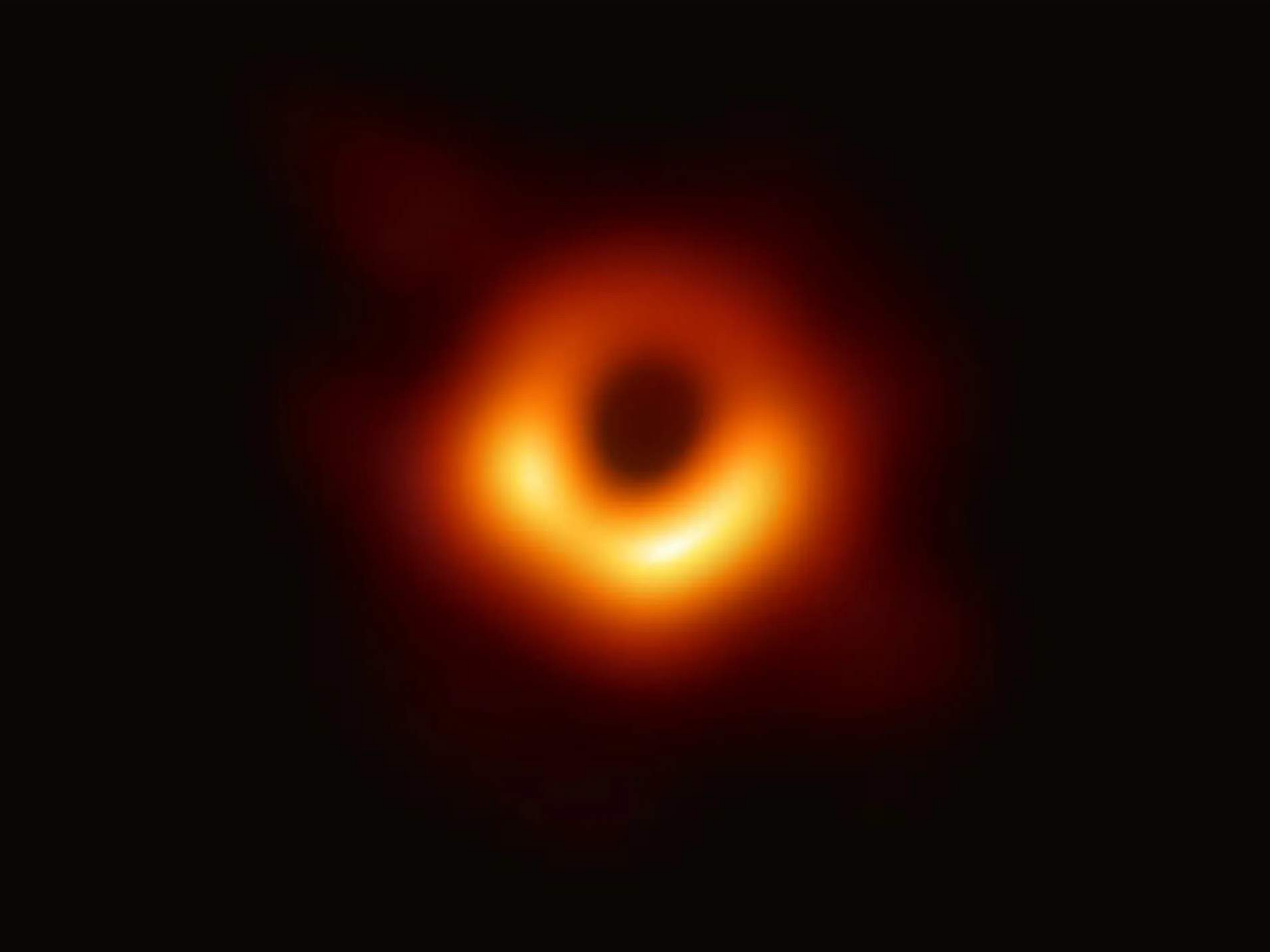
Why const × SORT. PC

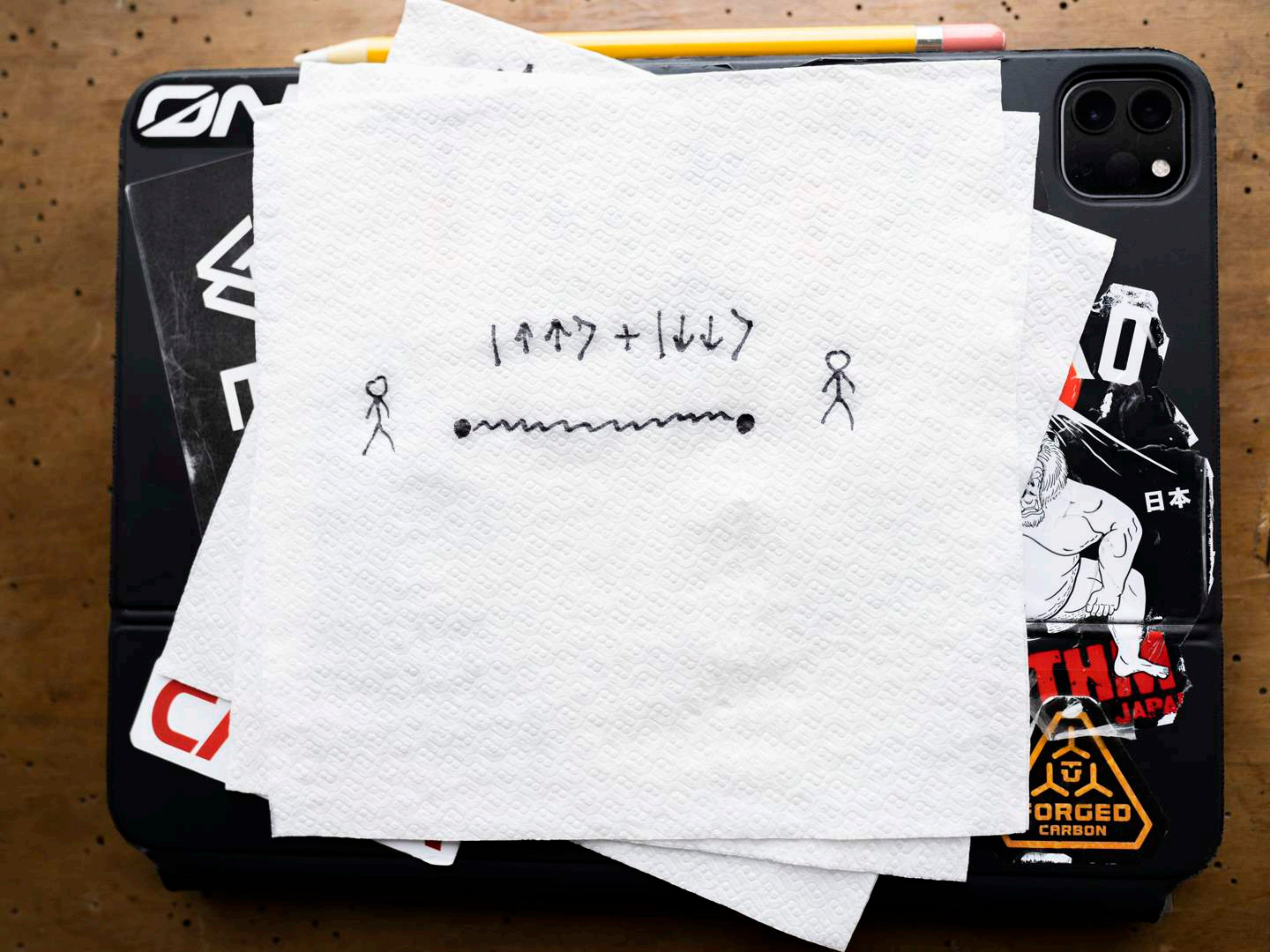
TO LEARN:
Bethe Ansatz Probs.
Kondo
2-D Hall
accel. Temp
Non Linear Classical Hydro

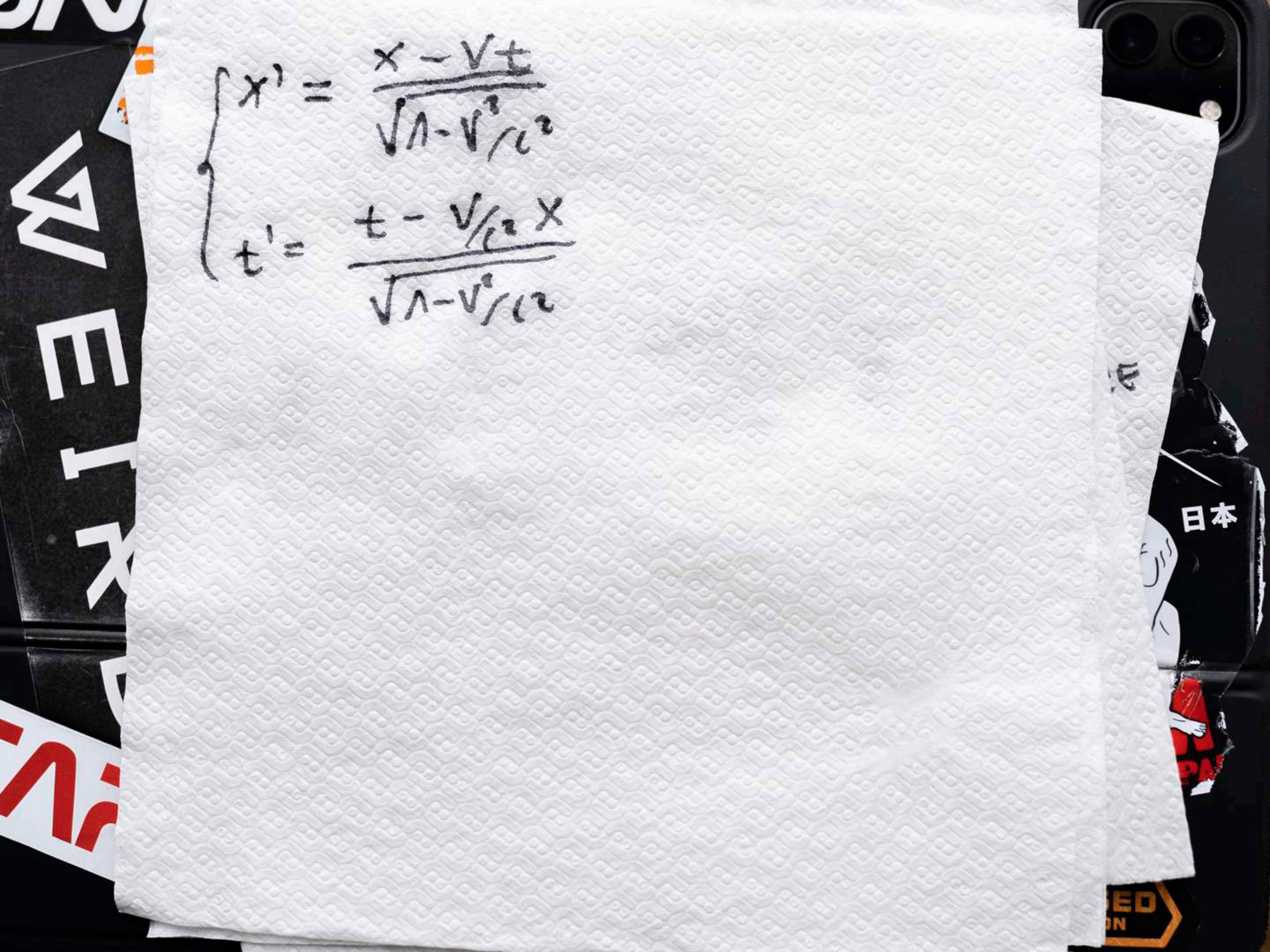
$$Ⓐ\ f = u(r, a)$$

$$g = 4(r\cdot z)\, u(r\cdot z)$$

$$Ⓑ\ f = 2|r\cdot a|(u\cdot a)$$

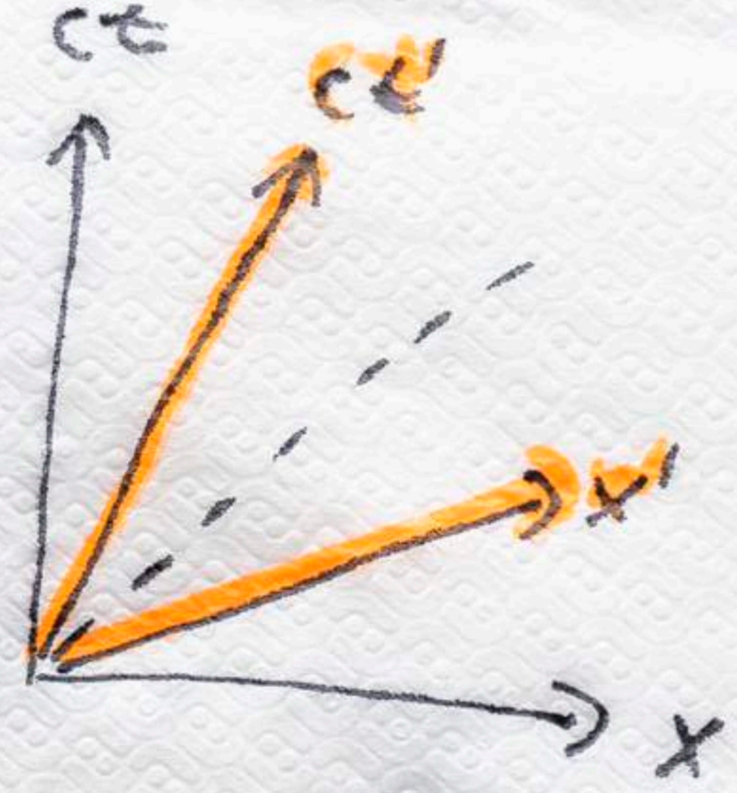



$|\uparrow\uparrow\rangle + |\downarrow\downarrow\rangle$
日本
FORGED
CARBON

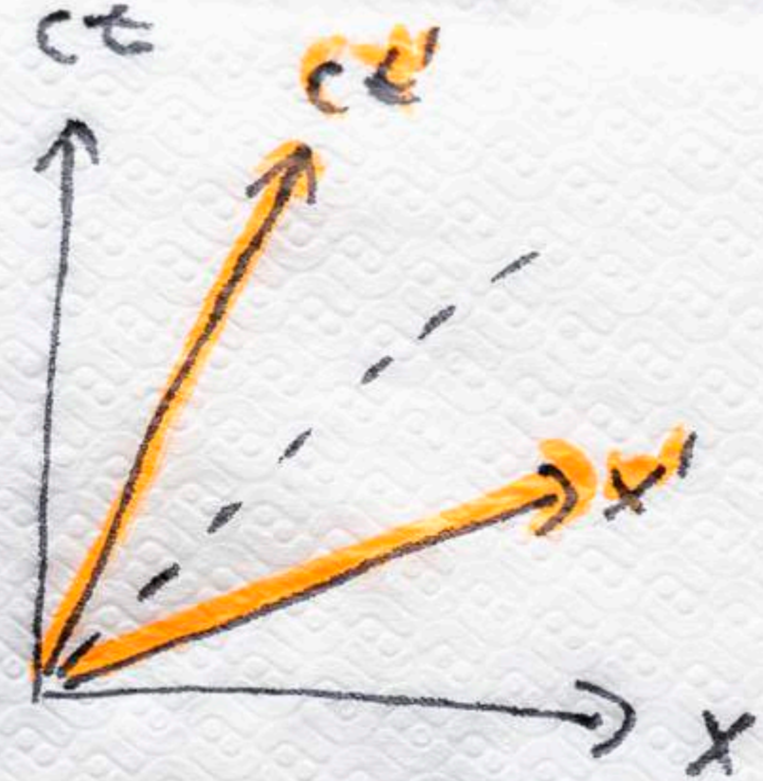


$$\begin{cases} x' = \dfrac{x - vt}{\sqrt{1 - v^2/c^2}} \\ t' = \dfrac{t - v/c^2\, x}{\sqrt{1 - v^2/c^2}} \end{cases}$$

$$\begin{cases} x' = \dfrac{x - vt}{\sqrt{1 - v^2/c^2}} \\ t' = \dfrac{t - v/c^2\, x}{\sqrt{1 - v^2/c^2}} \end{cases}$$

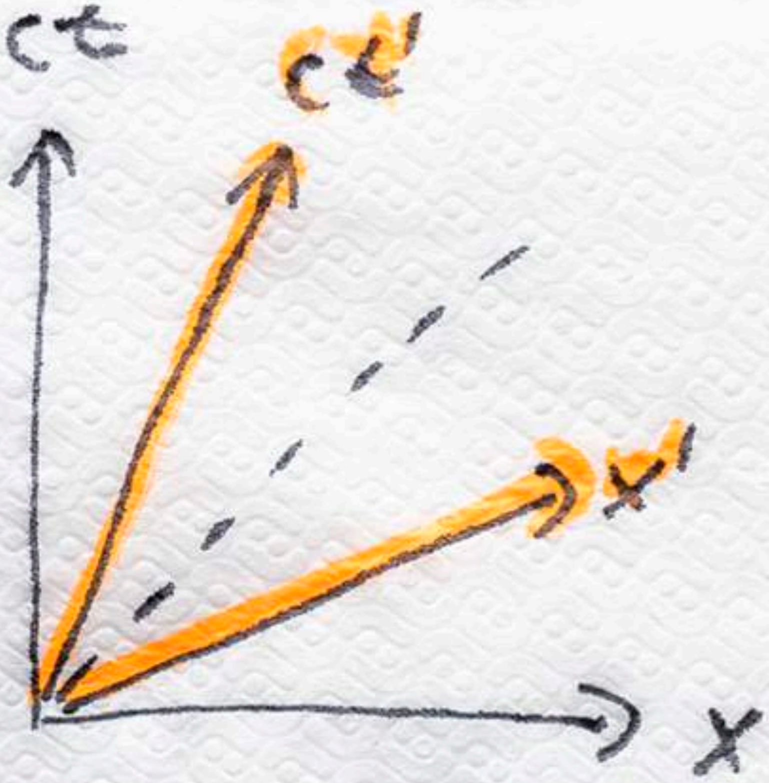


$$\begin{cases} x' = \dfrac{x - vt}{\sqrt{1 - v^2/c^2}} \\ t' = \dfrac{t - v/c^2\, x}{\sqrt{1 - v^2/c^2}} \end{cases}$$



(CZAS) (PRZESTRZEŃ)

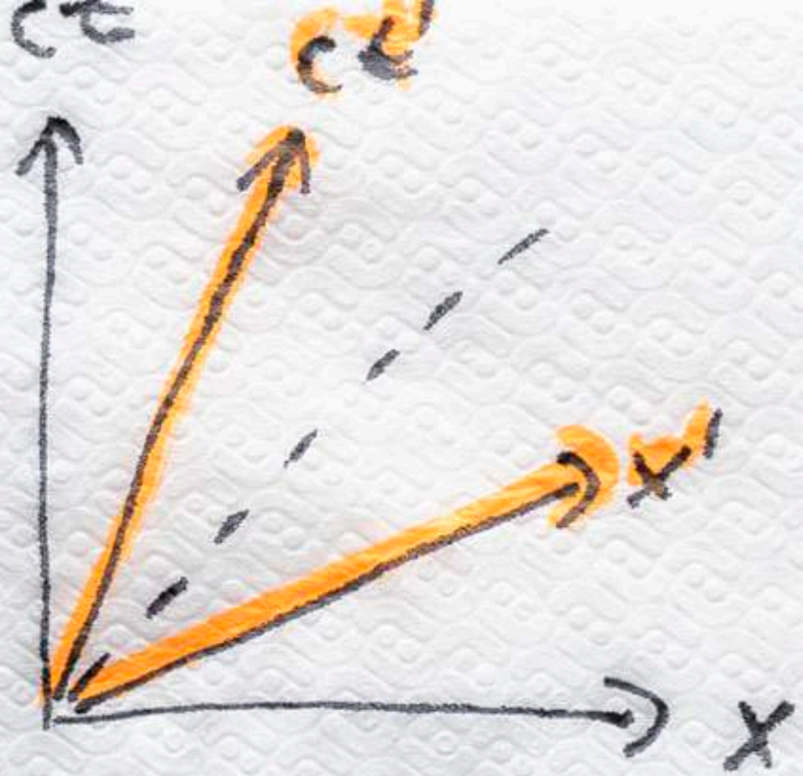
$$\begin{cases} x' = \dfrac{x - vt}{\sqrt{1 - v^2/c^2}} \\ \\ t' = \dfrac{t - v/c^2\, x}{\sqrt{1 - v^2/c^2}} \end{cases}$$



$$2 \cdot (\text{CZAS}) + \sqrt{3} \cdot (\text{PRZESTRZEŃ})$$

$$= (\text{CZAS})$$

$$\begin{cases} x' = \dfrac{x - vt}{\sqrt{1 - v^2/c^2}} \\ t' = \dfrac{t - v/c^2\, x}{\sqrt{1 - v^2/c^2}} \end{cases}$$



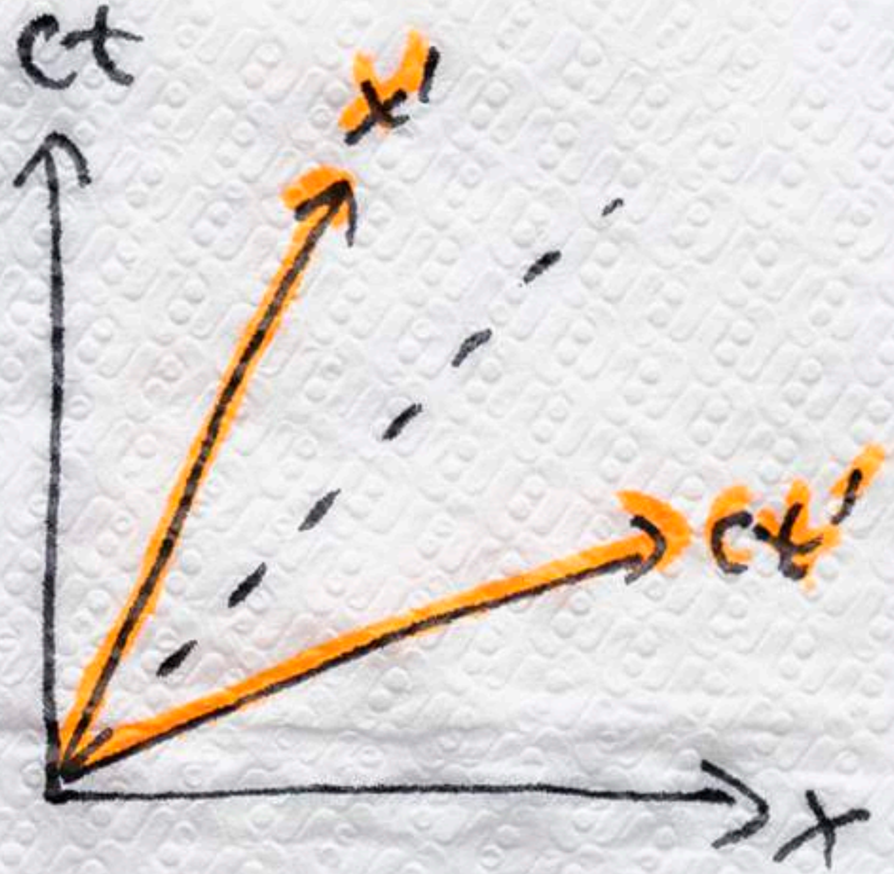
$$2\cdot(\text{CZAS}) + \sqrt{3}\cdot(\text{PRZESTRZEŃ})$$

$$= \cancel{(\text{CZAS})}$$

$$= (\text{PRZESTRZEŃ})$$

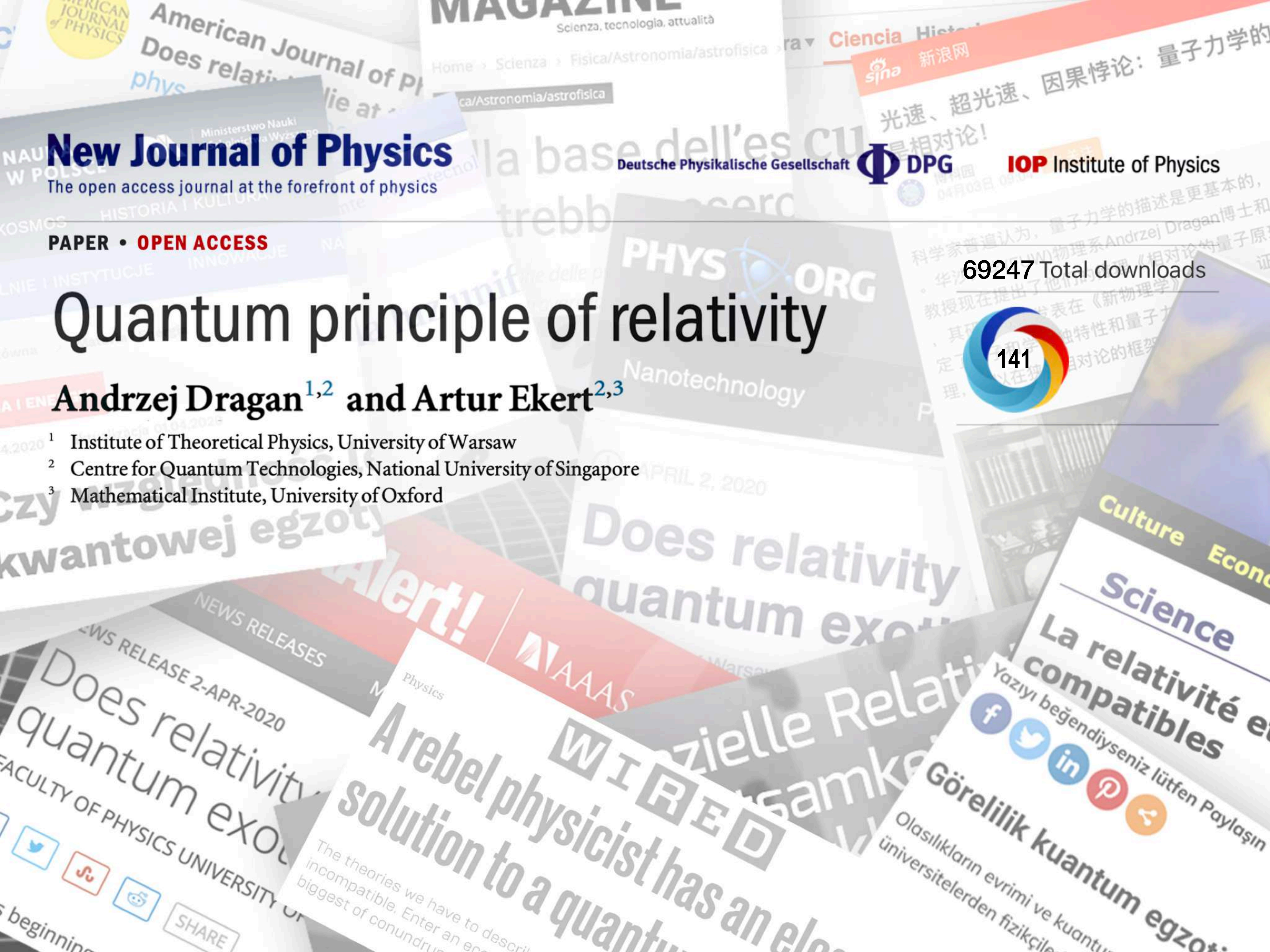
$$\begin{cases} x' = -\dfrac{v}{|v|}\,\dfrac{x - vt}{\sqrt{v^2/c^2 - 1}} \\[2ex] t' = -\dfrac{v}{|v|}\,\dfrac{t - v/c^2\,x}{\sqrt{v^2/c^2 - 1}} \end{cases}$$

$$\begin{cases} x' = -\dfrac{v}{|v|}\,\dfrac{x - vt}{\sqrt{v^2/c^2 - 1}} \\[2ex] t' = -\dfrac{v}{|v|}\,\dfrac{t - v/c^2\,x}{\sqrt{v^2/c^2 - 1}} \end{cases}$$



$$\boxed{v > c}$$

$$v \to \infty \Rightarrow \begin{cases} x' = ct \\ ct' = x \end{cases}$$


American Journal of Ph
Does relati
MAGAZINE
Scienza, tecnologia, attualità
Ciencia
新浪网
光速、超光速、因果悖论：量子力学的
是相对论！
PHYS ORG
Nanotechnology
APRIL 2, 2020
Does relativity
quantum exot
Czy wzgledność
kwantowej egzot
Alert!
AAAS
NEWS RELEASES
NEWS RELEASE 2-APR-2020
Does relativity
quantum exo
FACULTY OF PHYSICS UNIVERSITY OF
SHARE
Physics
A rebel physicist has an ele
solution to a quantu
The theories we have to descri
incompatible. Enter an ec
biggest of conundru
WIRED
zielle Relati
Culture
Econ
Science
La relativité e
compatibles
Yazıyı beğendiyseniz lütfen Paylaşın
Görelilik kuantum egzoti
Olasılıkların evrimi ve kuantu
üniversitelerden fizikçile

New Journal of Physics
The open access journal at the forefront of physics

Deutsche Physikalische Gesellschaft DPG

IOP Institute of Physics

PAPER • OPEN ACCESS

69247 Total downloads

141

Quantum principle of relativity

Andrzej Dragan[1,2] and **Artur Ekert**[2,3]

[1] Institute of Theoretical Physics, University of Warsaw
[2] Centre for Quantum Technologies, National University of Singapore
[3] Mathematical Institute, University of Oxford

New Journal of Physics
The open access journal at the forefront of physics

Deutsche Physikalische Gesellschaft DPG

IOP Institute of Physics

PAPER • OPEN ACCESS

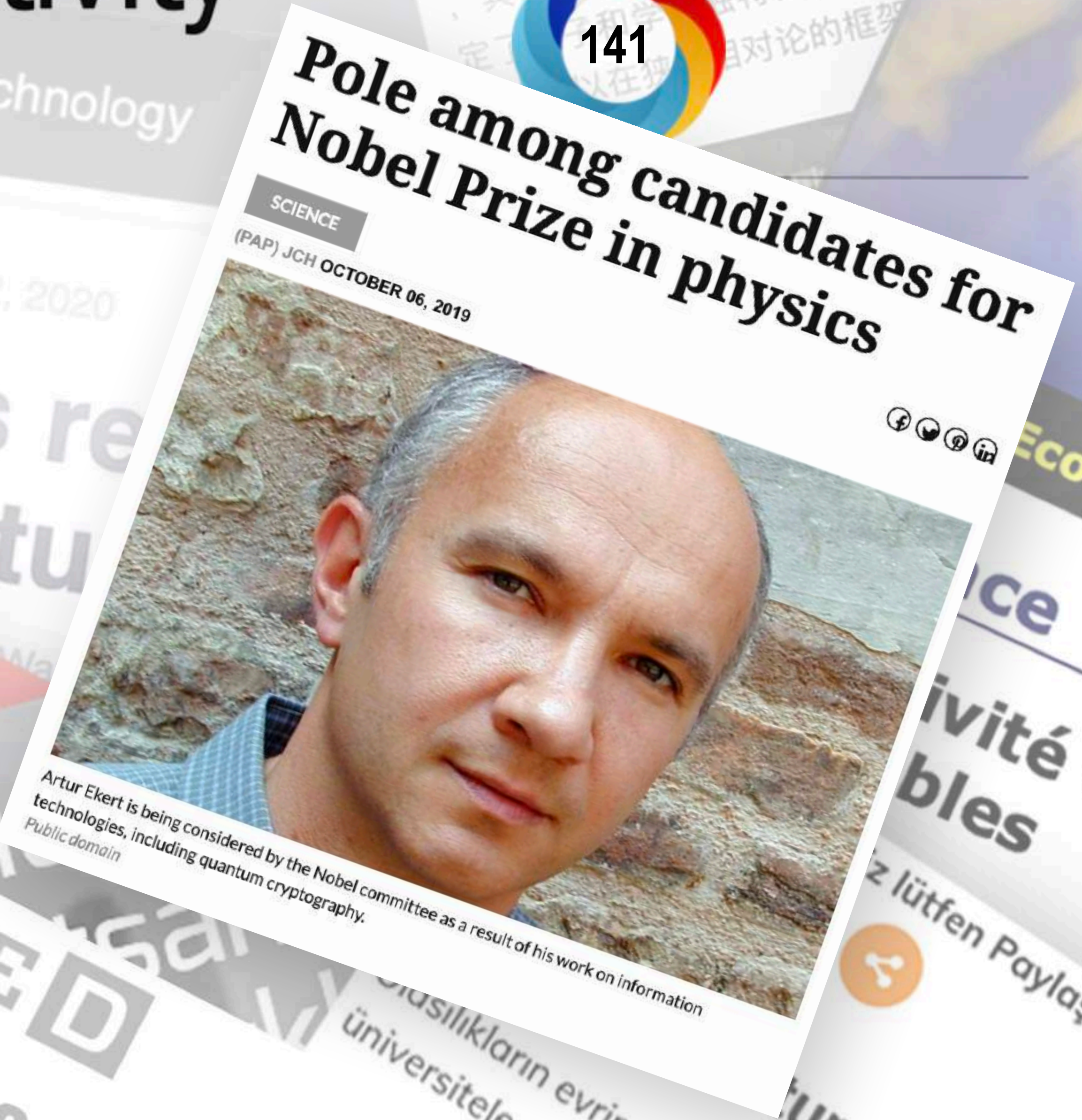
Quantum principle of relativity

Andrzej Dragan[1,2] **and Artur Ekert**[2,3]

[1] Institute of Theoretical Physics, University of Warsaw
[2] Centre for Quantum Technologies, National University of Singapore
[3] Mathematical Institute, University of Oxford

69247 Total downloads

141



Pole among candidates for Nobel Prize in physics

SCIENCE

(PAP) JCH OCTOBER 06, 2019

Artur Ekert is being considered by the Nobel committee as a result of his work on information technologies, including quantum cryptography.

Public domain

Albert Einstein @AlbertEinstein · Apr 6

Does relativity lie at the source of quantum exoticism?

Does relativity lie at the source of quantum exoticism?

Since its beginnings, quantum mechanics hasn't ceased to amaze u

with its peculiarity, so difficult to understand. Why does one partic

phys.org

3 73

American Journal of Physics @JournalPhysic

Does relativity lie at the source of quantum e

phys.org/news/2020-04-r...

RECCOM MAGAZINE

Scienza, tecnologia, attualità

Home › Scienza › Fisica/Astronomia/astrofisica

Fisica/Astronomia/astrofisica

Alla base dell'es

potrebbe essere

L'evoluzione delle probabilità e dei fenome

CIA

Economía

n que la ex

vidad

Ciencia Historia Viajar Play Bienesta

uántico

de Enstei

新浪网

光速、超光速、因果悖论：量子力学

是相对论！

博科园

04月03日 09:04

＋关注

科学家普遍认为，量子力学的描述是更基本

。华沙大学(FUW)物理系Andrzej Dragan博

教授现在提出了他们的推理《相对论的量

，其研究成果发表在《新物理学》期刊上

定了量子力学的独特性和量子力学的非

理，可以在狭义相对论的框架内加以解

爱因斯坦

NAUKA W POLSCE

Ministerstwo Nauki i Szkolnictwa Wyższego

KOSMOS HISTORIA I KULTURA

UCZELNIE I INSTYTUCJE INNOWACJE

Strona główna › Materia i Energia

MATERIA I ENERGIA

01.04.2020 aktualizacja 01.04.2020

Czy względność

kwantowej egz

---

ventos acima da ve

Quântica e Relatividade

Com informações da Universidade de Varsóvia - 03/0

PHYS.ORG

Nanotechnology

APRIL 2, 2020

Does rel

ntu

Culture Economie

Science

La relativité et la

compatibles

C'est l'hypothèse révolutionn

mars 2020, réf

Yazıyı beğendiyseniz lütfen Paylaşın

Görelilik kuantum egzotizminin kaynağında mıdır

Olasılıkların evrimi ve kuantum mekaniğinin "imkansız" fenomenleri, Va

üniversitelerden fizikçilerin önerdiği gibi, özel görelilik teorisinden

Başlangıcından beri, kuantum mekaniği tuhaflığıyla bizi

parçacık neden aynı anda iki yarıktan geçiyor gibi

EurekAlert!

NEWS RELEASES MULTIMEDIA

2-APR-2020

lativity lie at

exoti

WIRED

Physics

A rebel physicist has an elegant solution to a quantum mystery

describe the nature of the Universe are completely

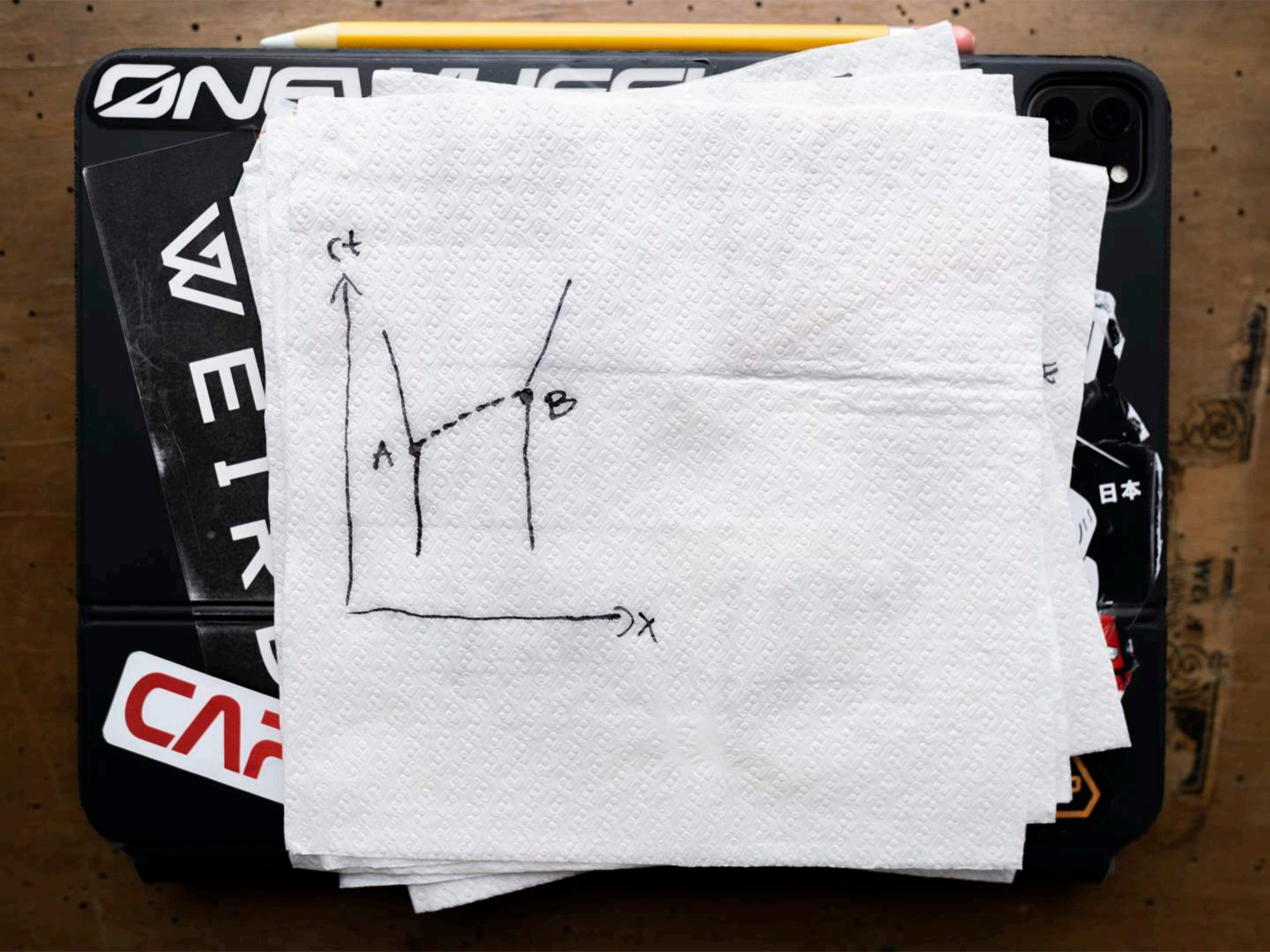
olish physicist with a possible solution to the

---

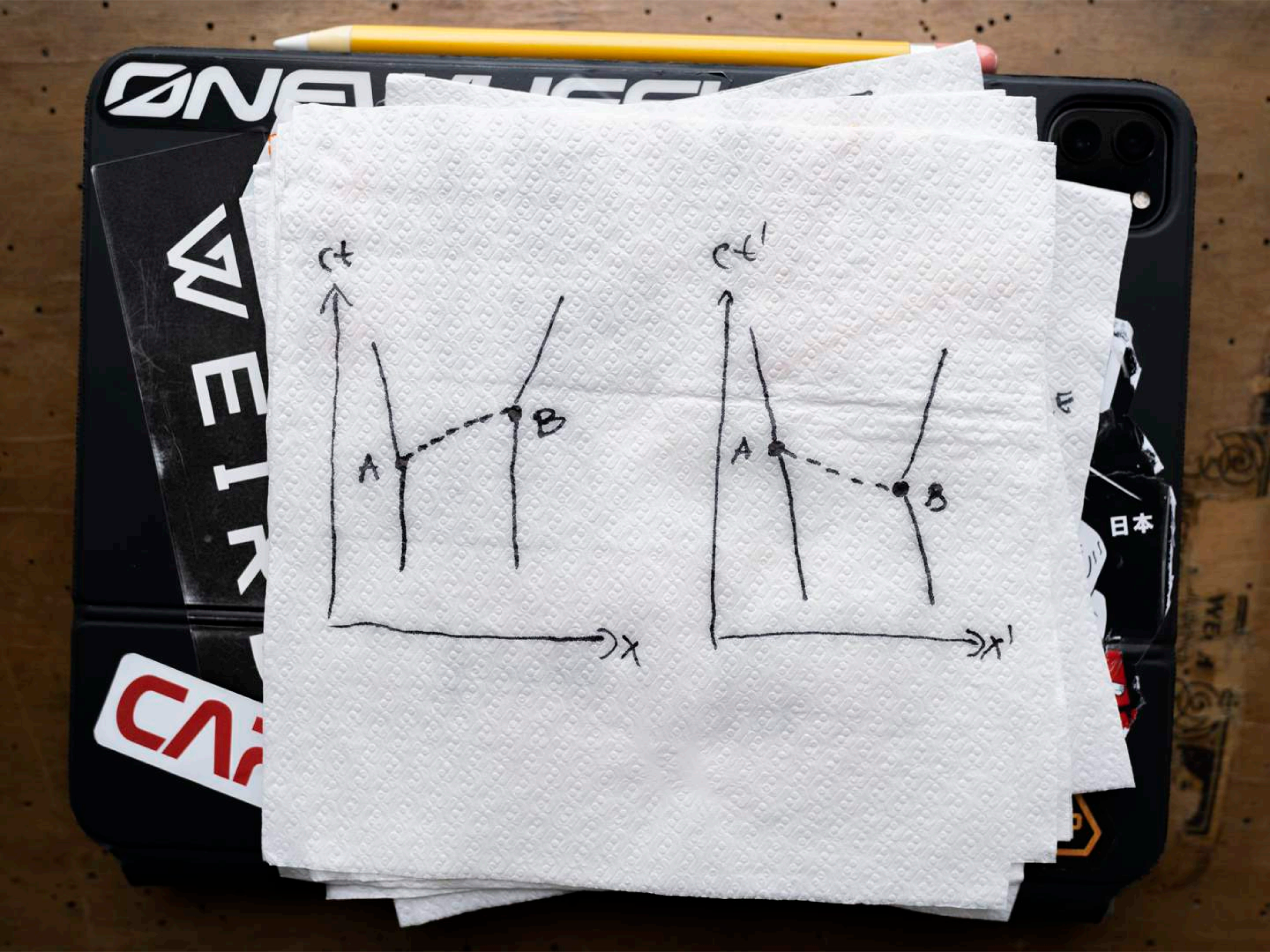
ielle Re

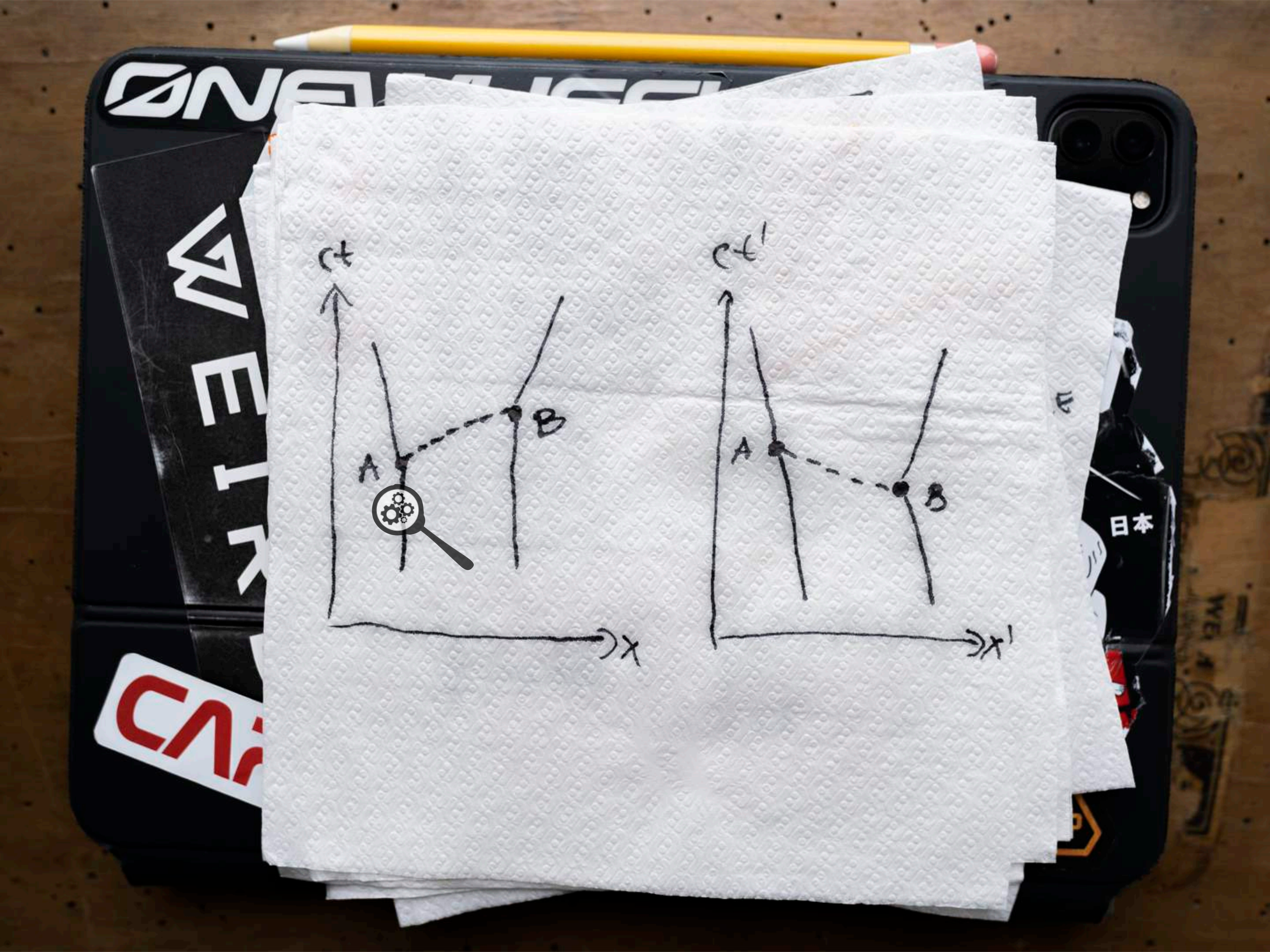
ltsamke

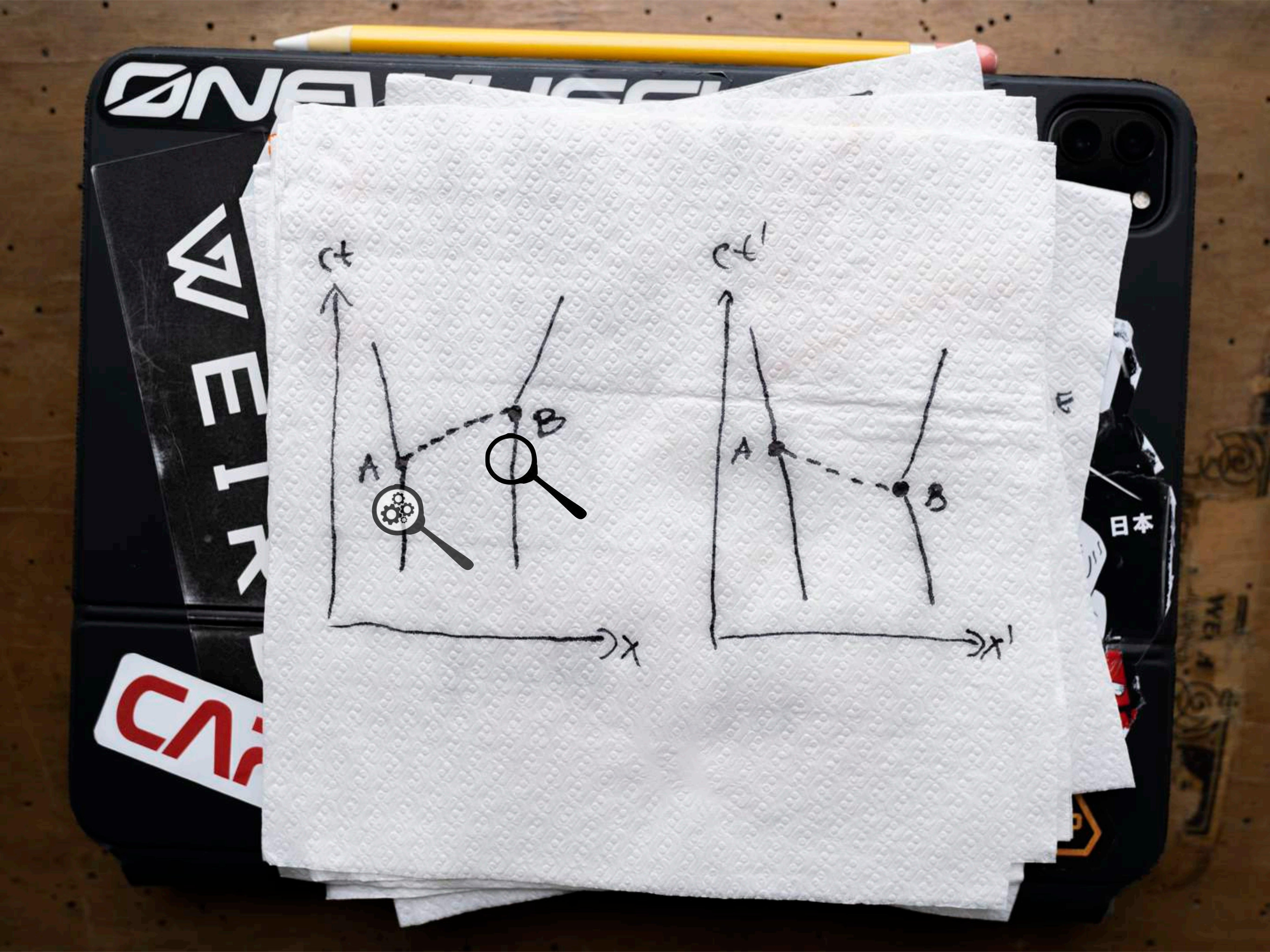
k erklären

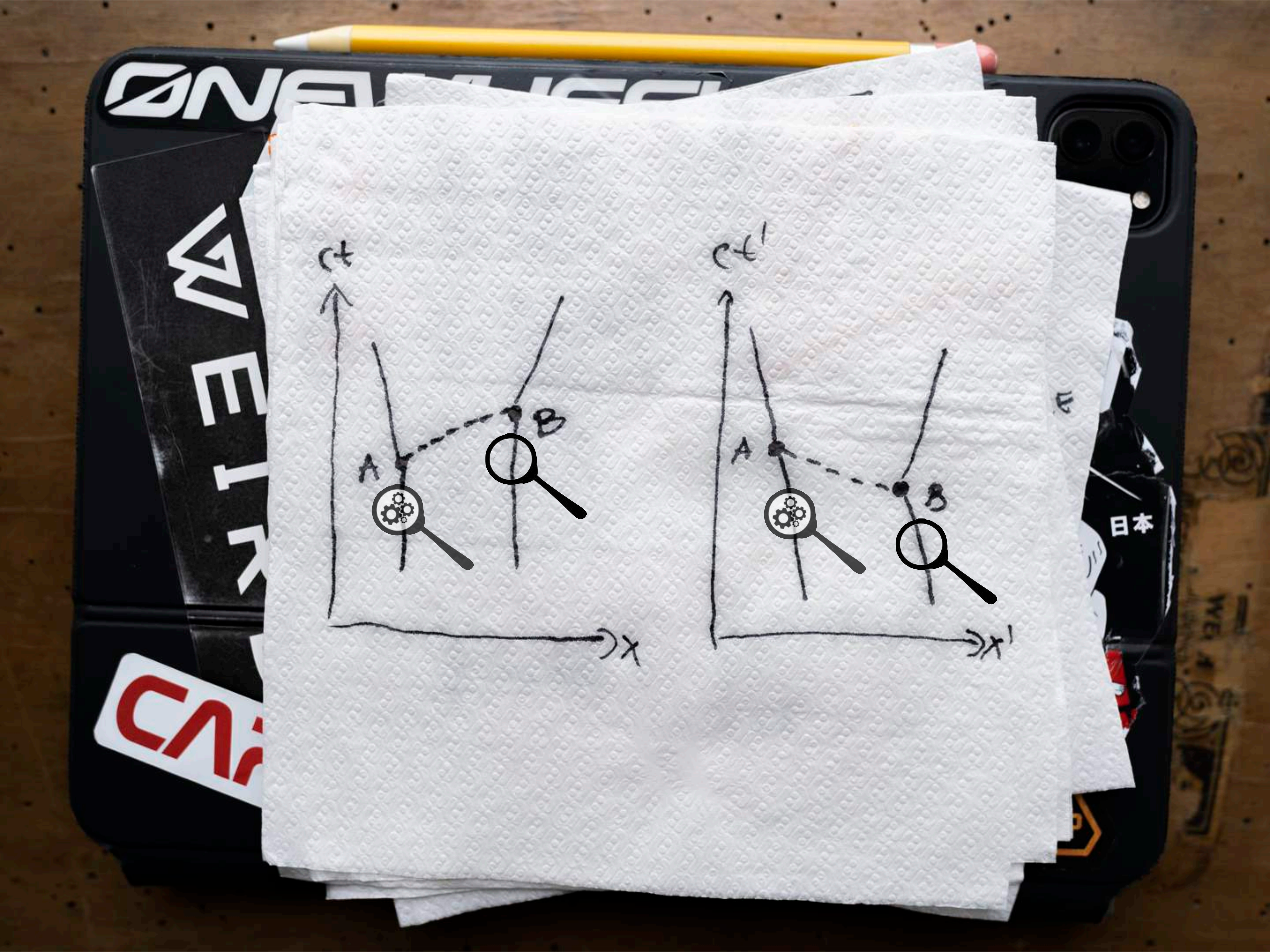


ct
A
B
x
日本

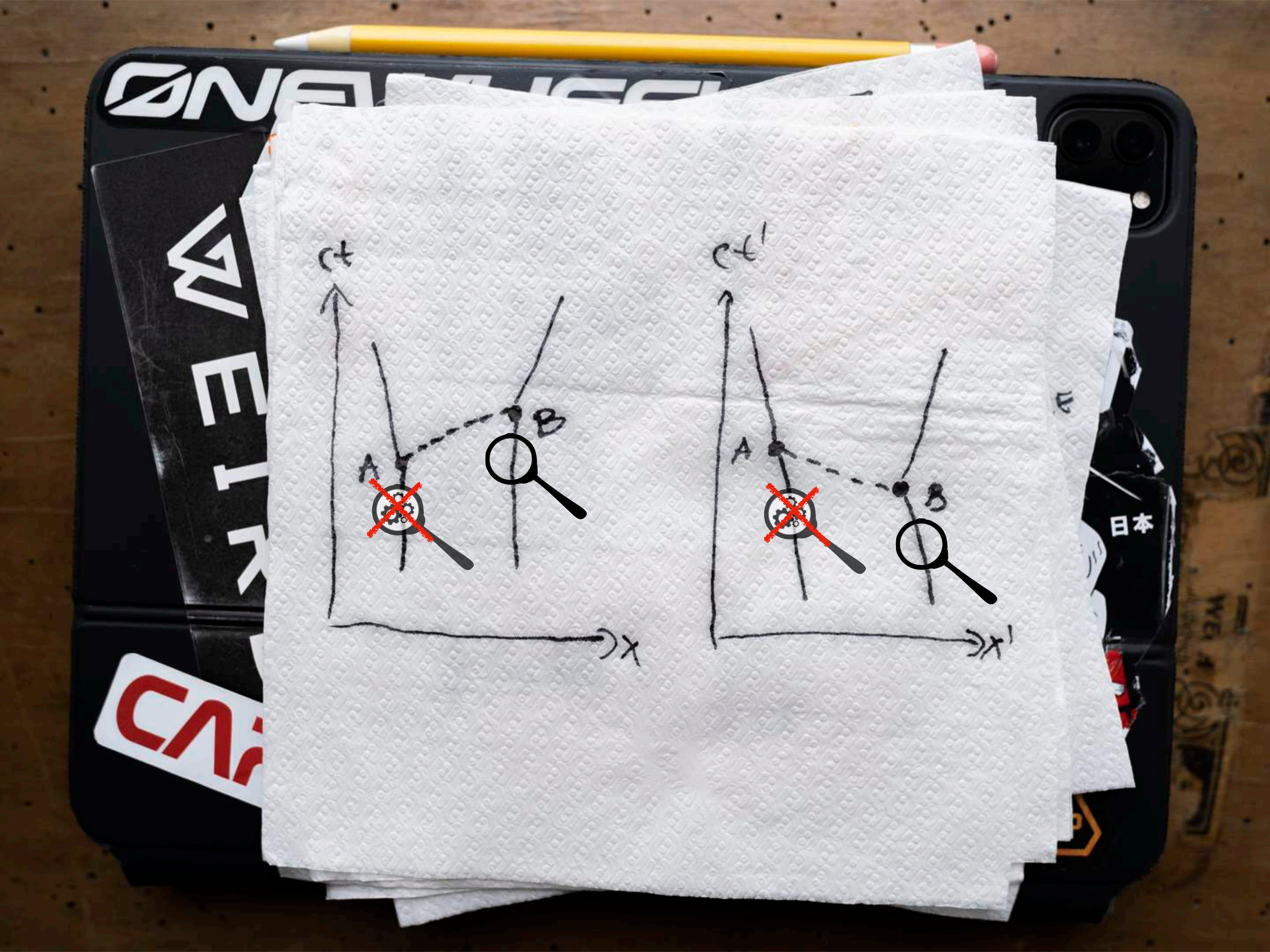

ct
A
B
x
ct'
A
B
x'

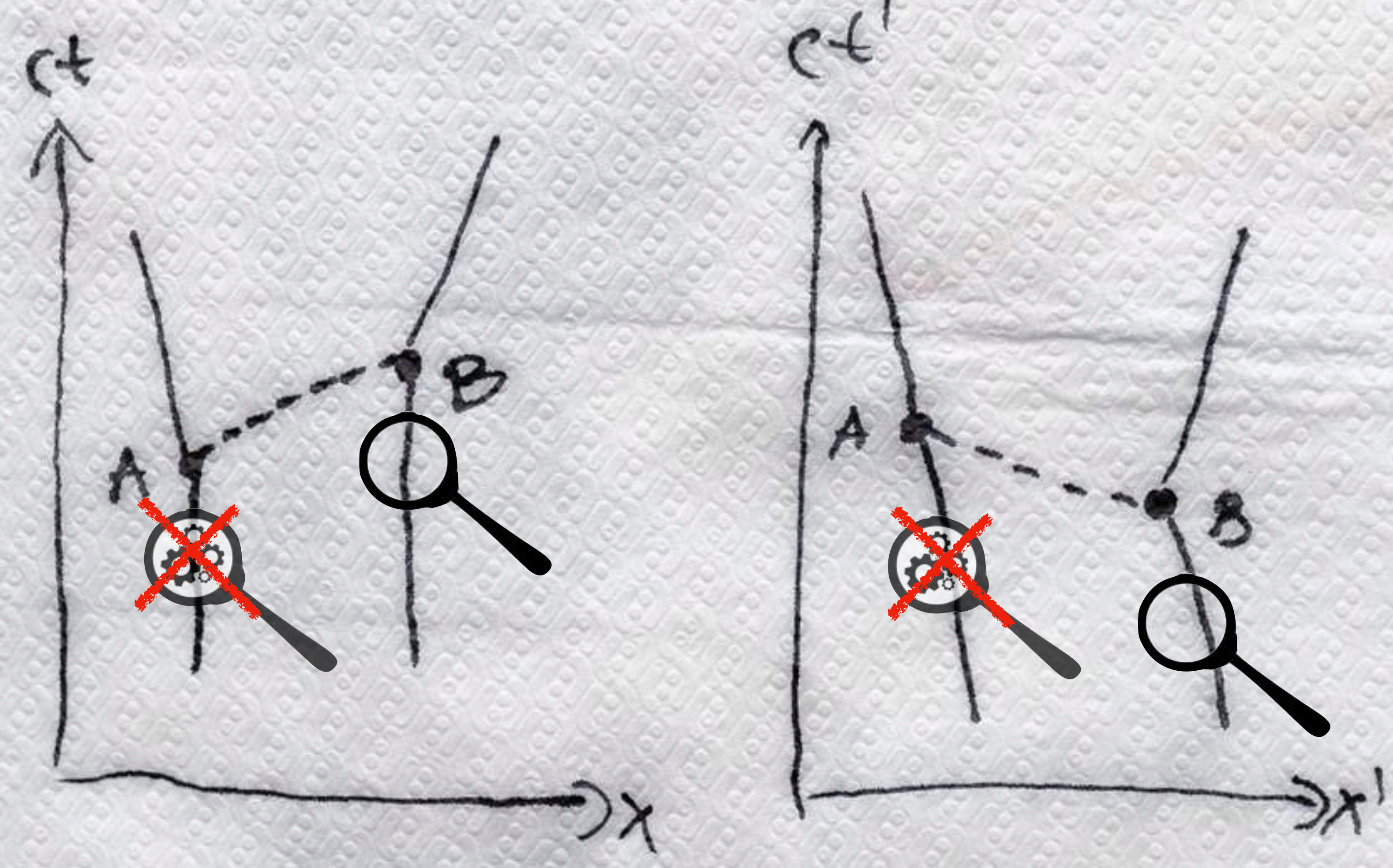

ct
A
B
x
ct'
A
B
x'


ct
A
B
x
ct'
A
B
x'

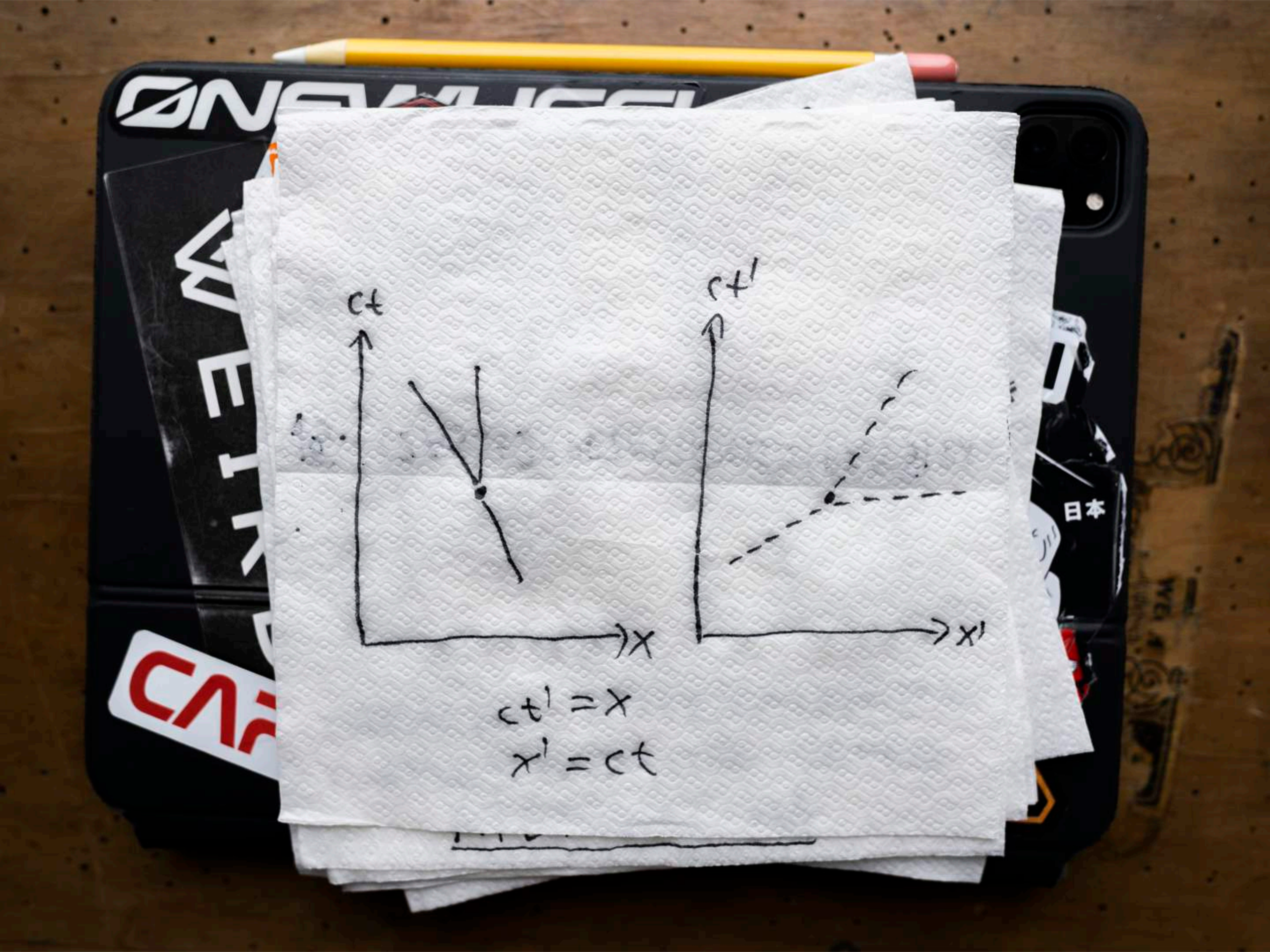


ct
A
B
x
ct'
A
B
x'


ct
A
B
x
ct'
A
B
x'

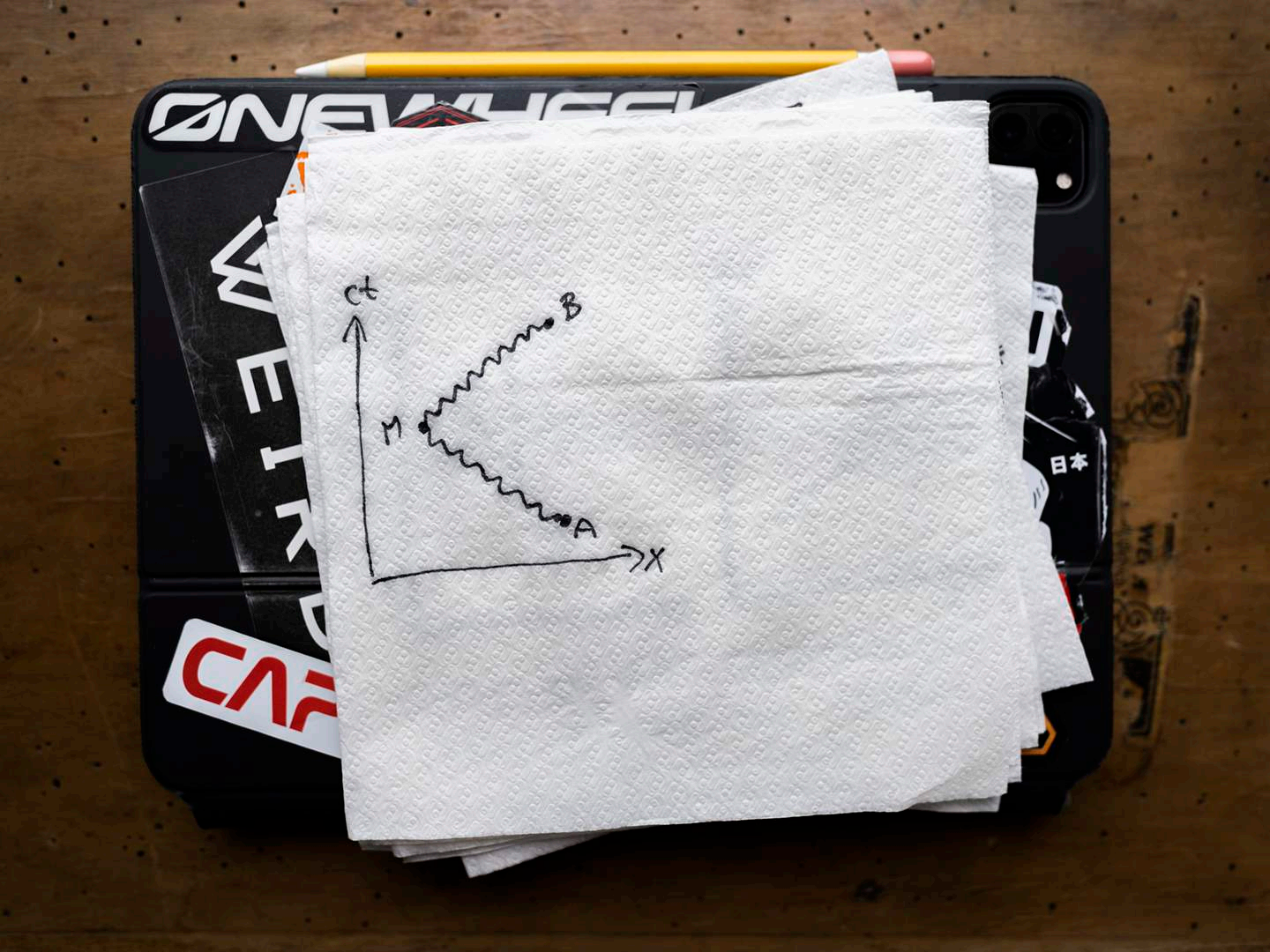

ct
A
B
x
ct'
A
B
x'

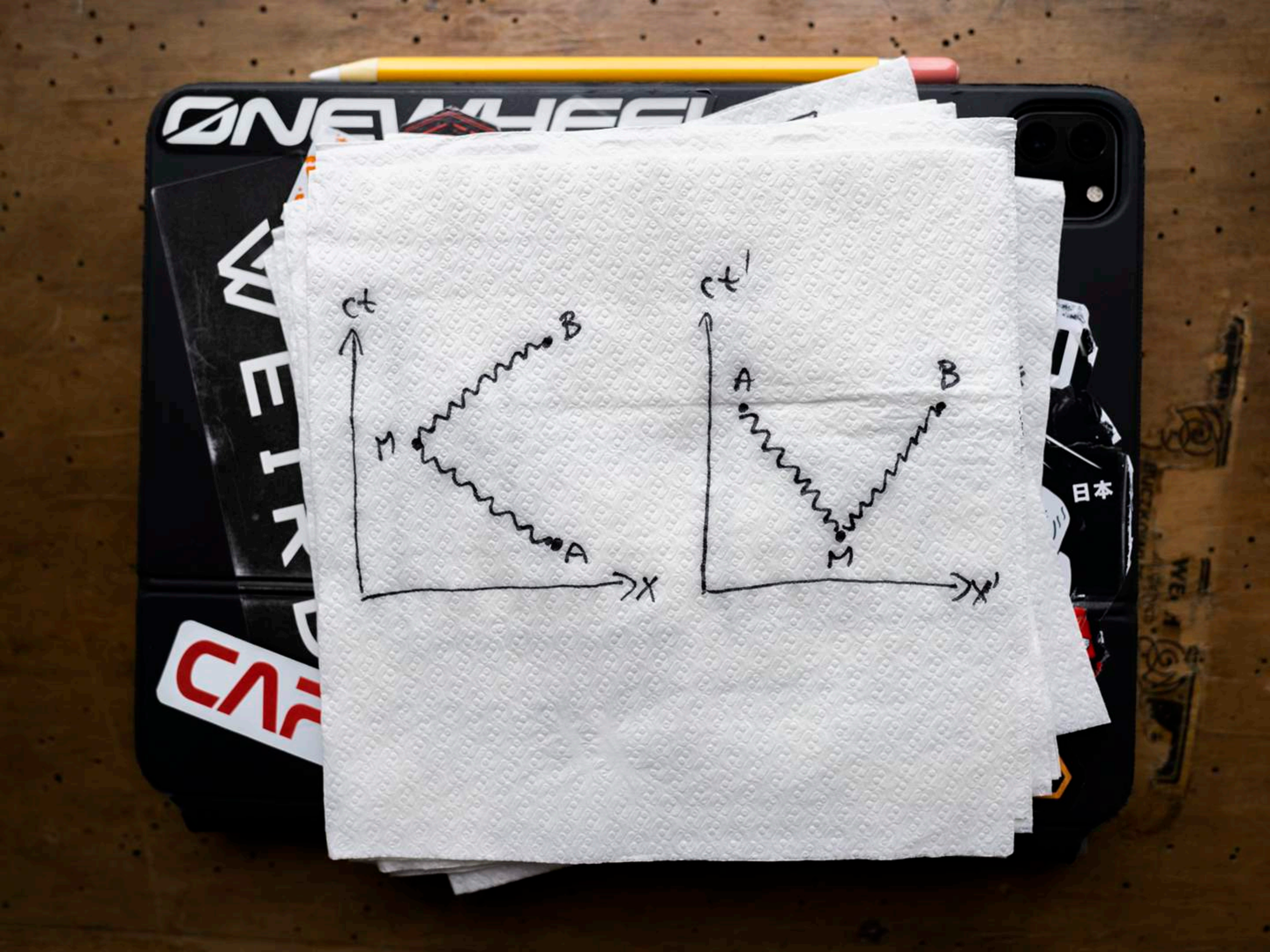
LOKALNA, DETERMINISTYCZNA
I RELATYWISTYCZNA TEORIA
NIEMOZLIWA

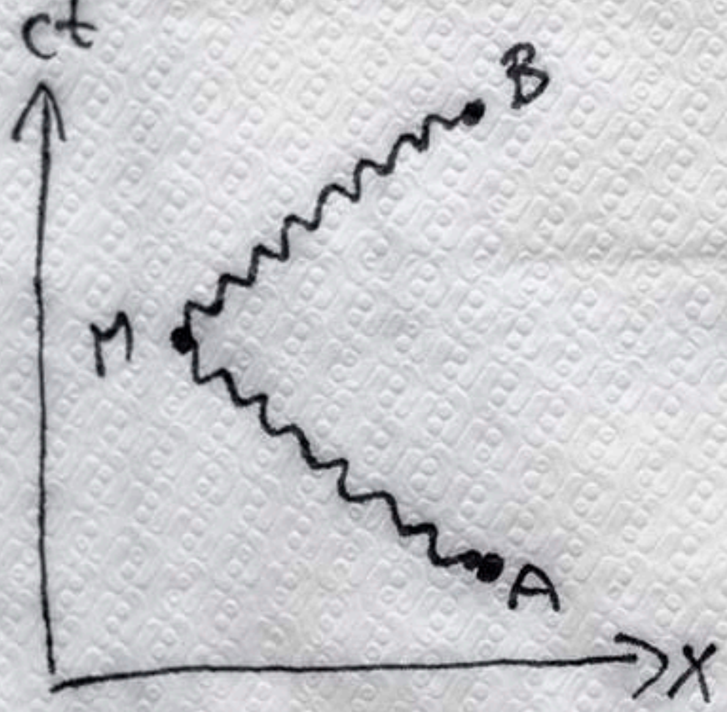


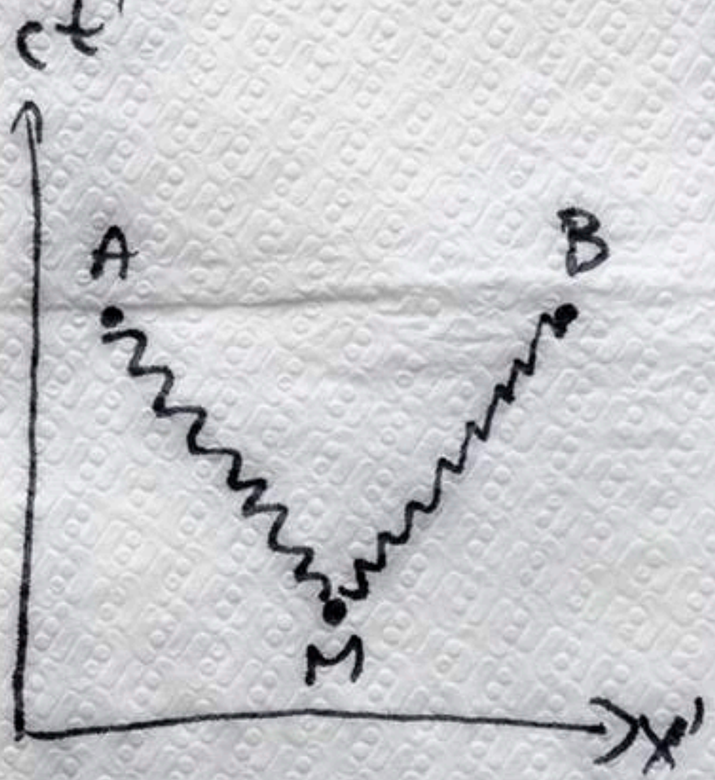
$ct' = x$

$x' = ct$


ct
B
M
A
x
日本

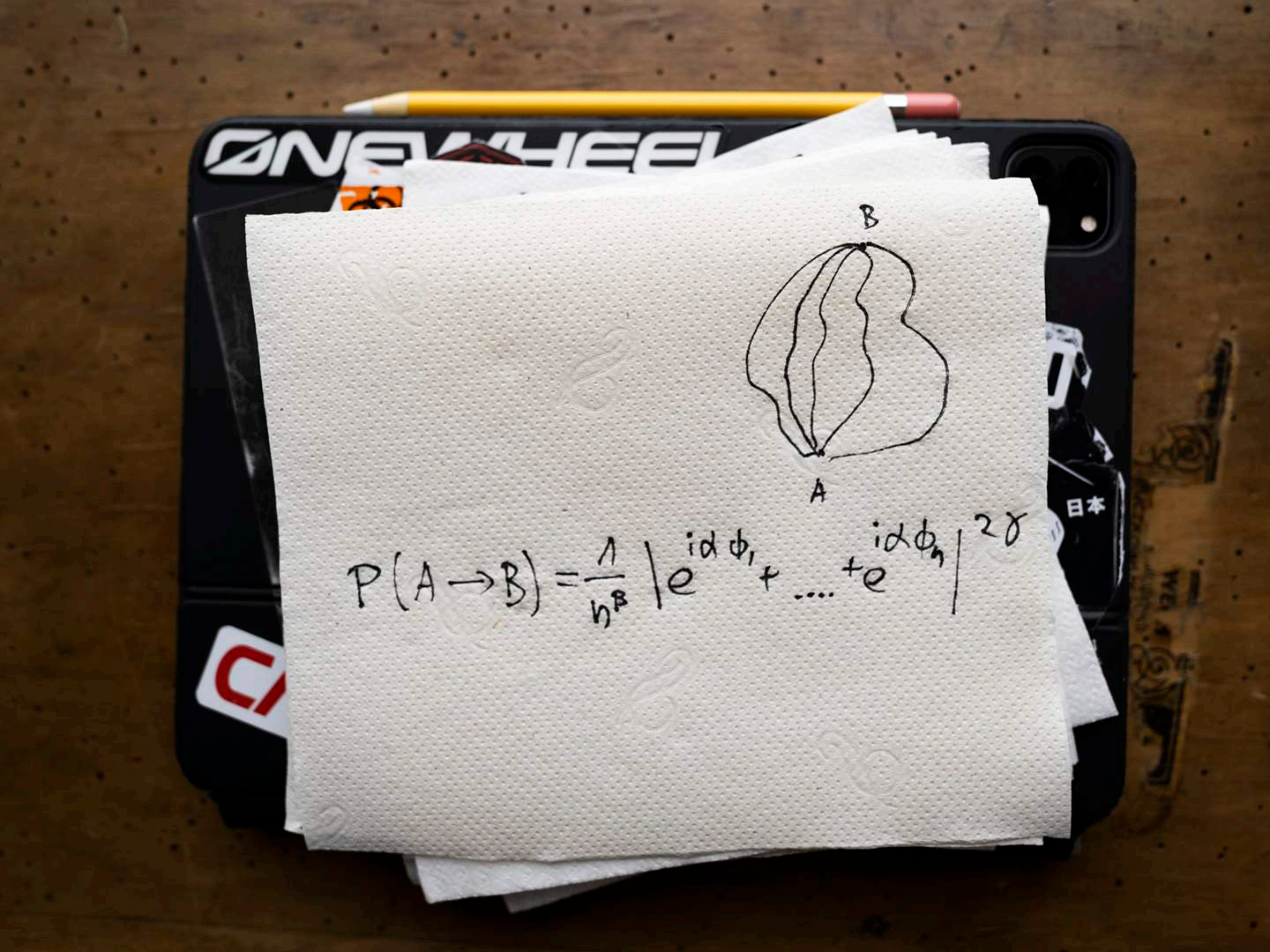

ct
B
M
A
x
ct'
A
B
M
x'



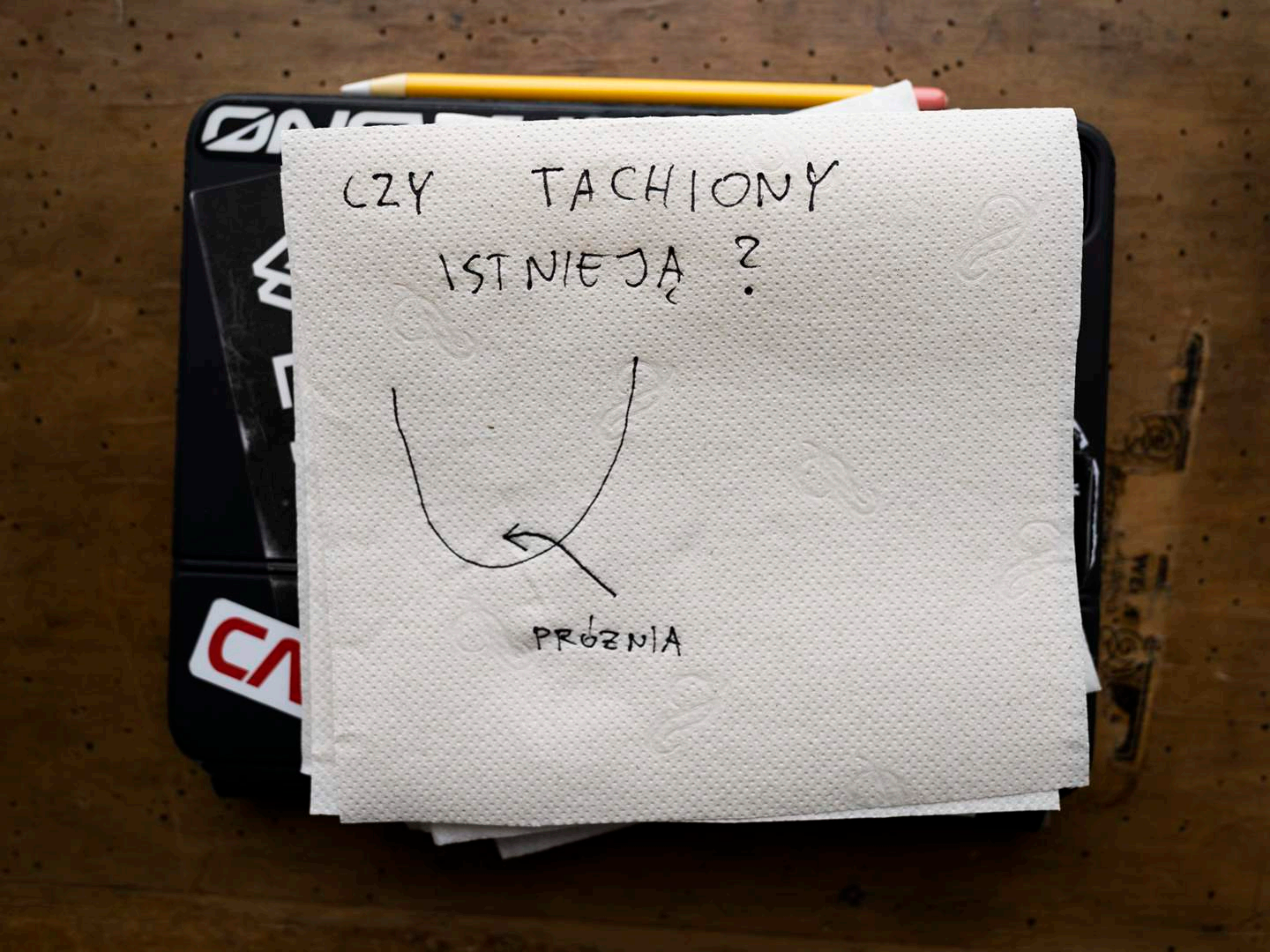


SUPERPOZYCJE

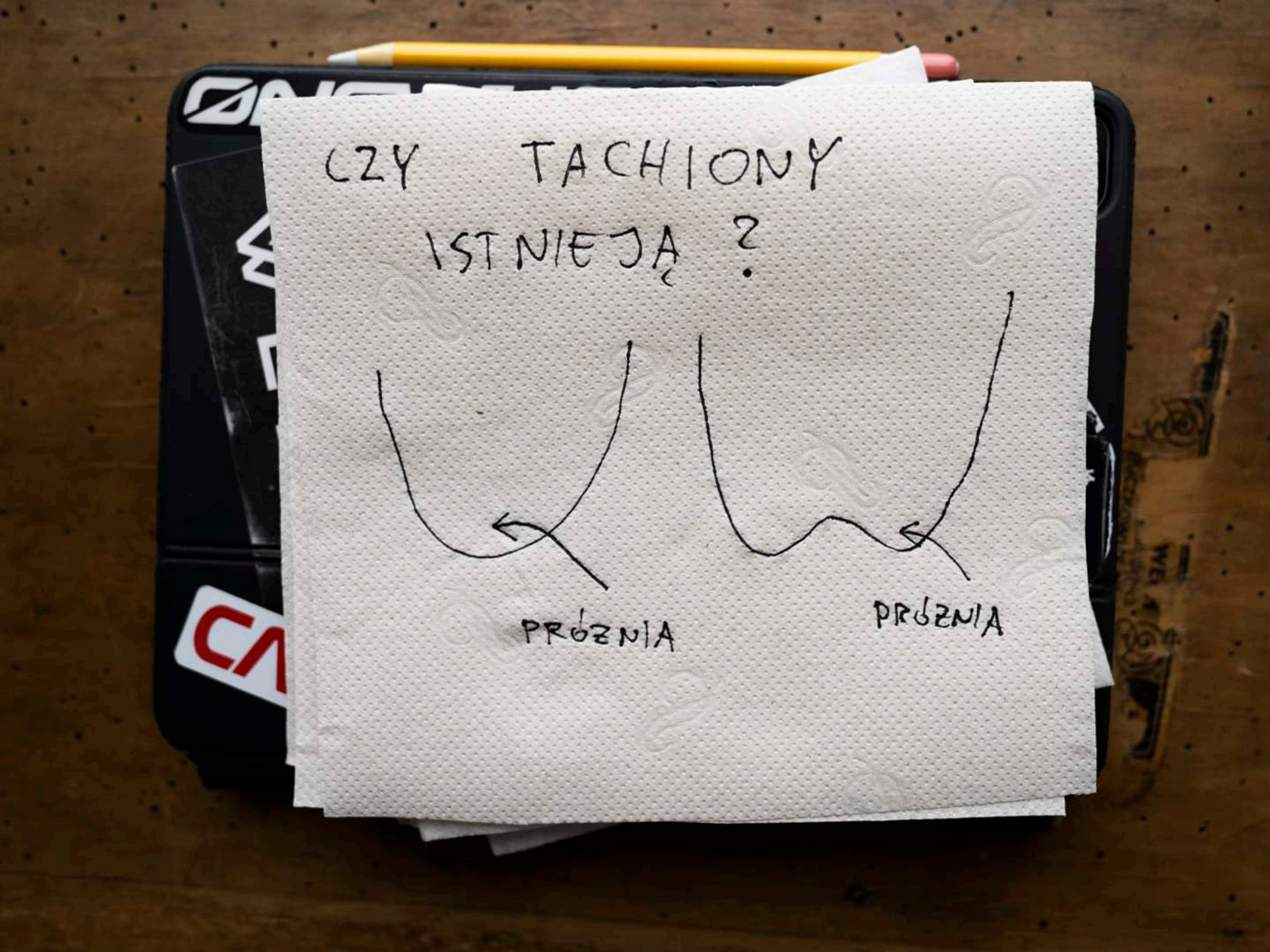
NIEUNIKNIONE



$$P(A \to B) = \frac{1}{n^{\beta}} \left| e^{i\alpha\phi_1} + \ldots + e^{i\alpha\phi_n} \right|^{2\gamma}$$



CZY TACHIONY ISTNIEJĄ?



CZY TACHIONY ISTNIEJĄ?

PRÓZNIA
PRÓZNIA

2.0
KWANTECHIZM
KLATKA NA LUDZI
ANDRZEJ DRAGAN
NISEKO
日本
UNION