

CERN: Wandering the Immeasurable

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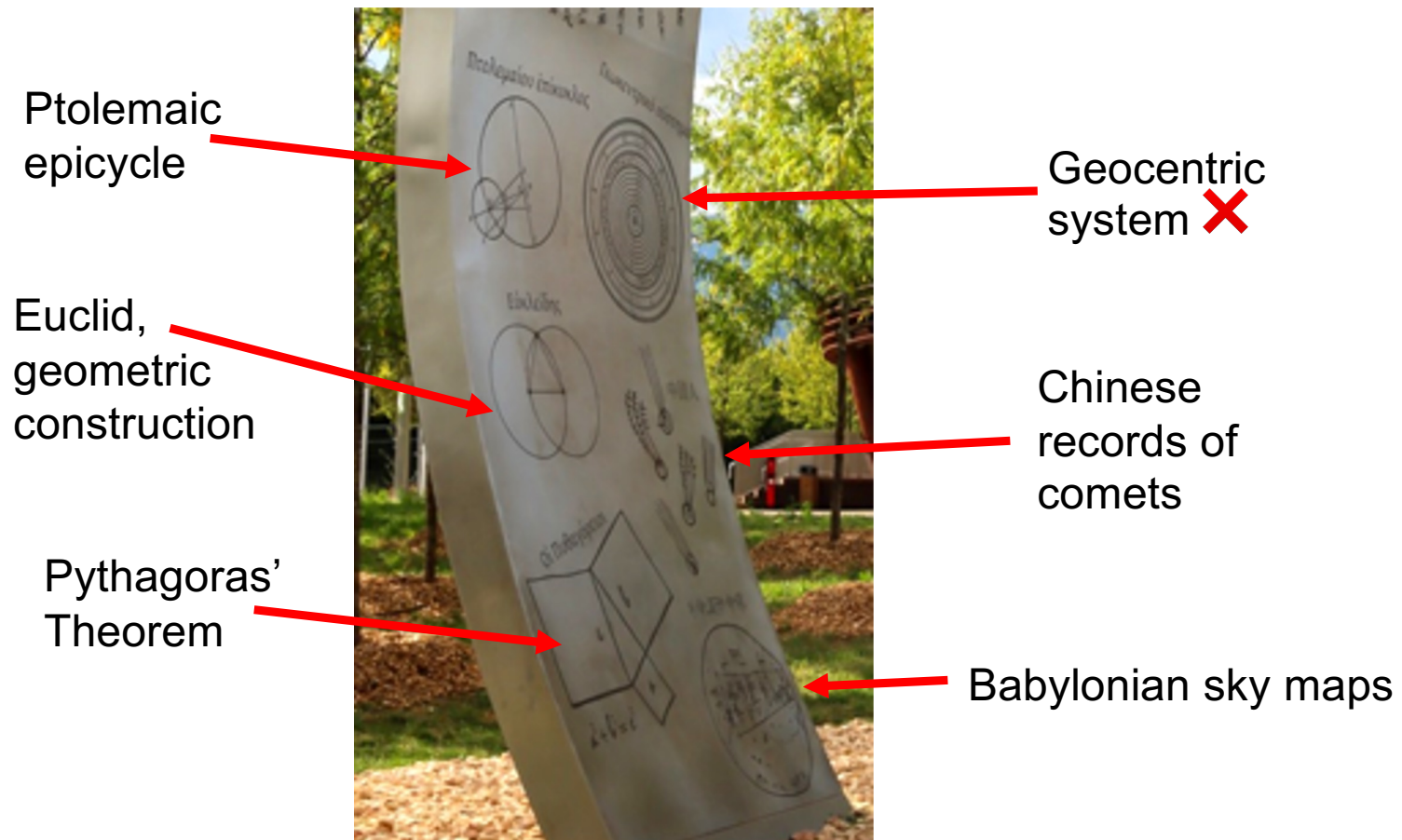
Geneva holiday: July 17-21st



July 20th, CERN



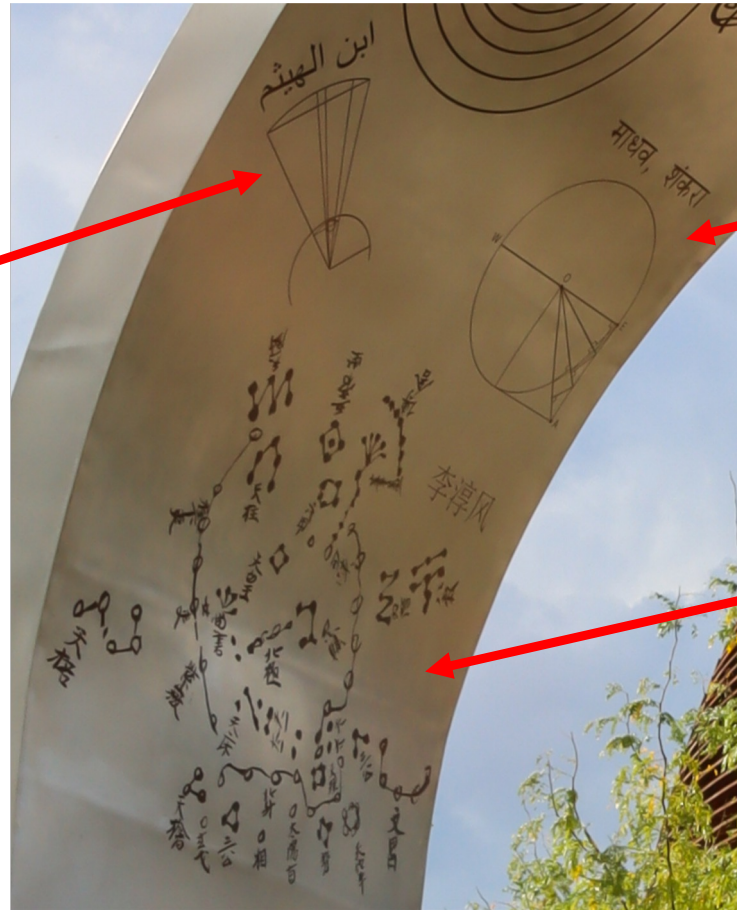
Wandering the Immeasurable: Math side



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Ibn al-Haytham,
“the father of
modern optics”



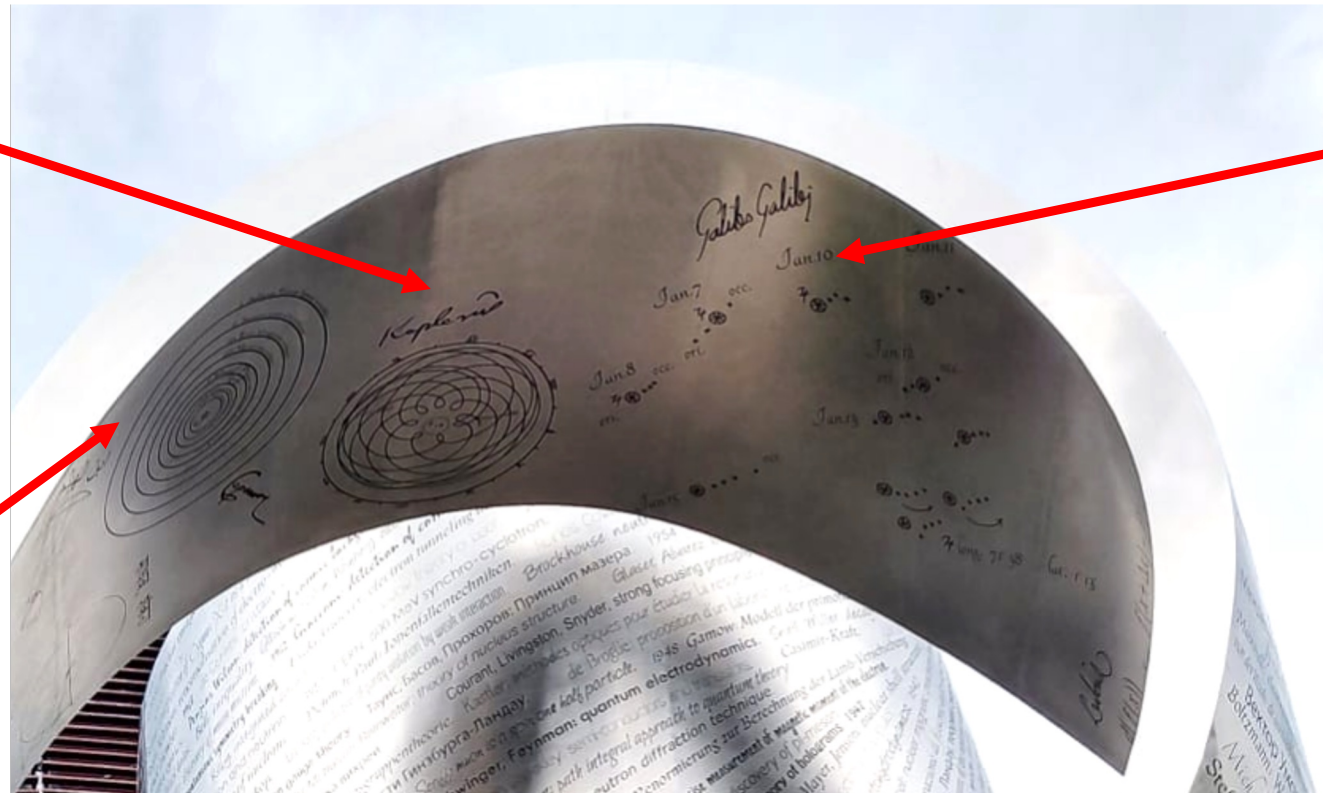
Circle
theorems

Dunhuang star
chart

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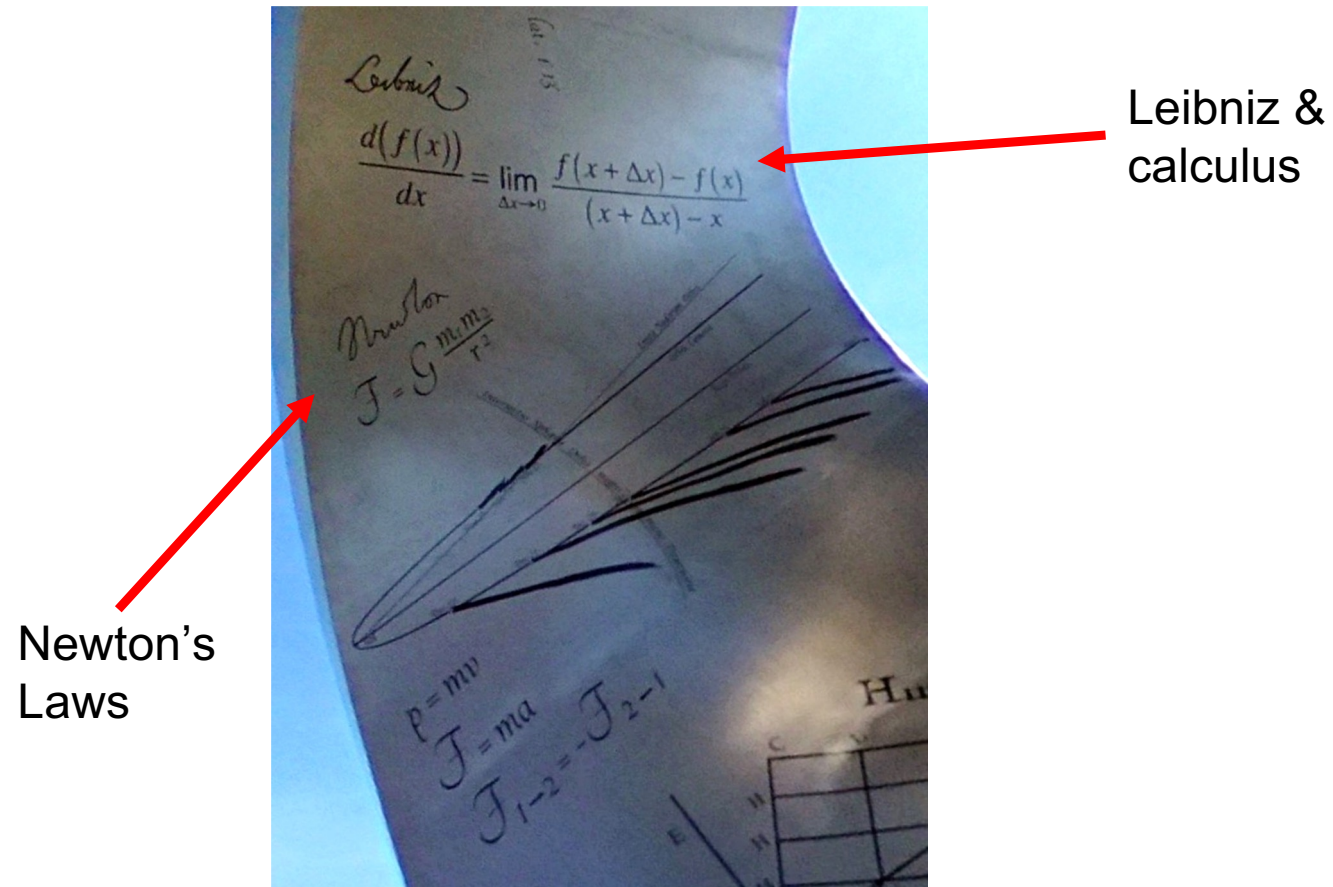
Kepler's laws
of planetary
motion

Copernican
heliocentrism



Galileo
observing
Jupiter's
moons

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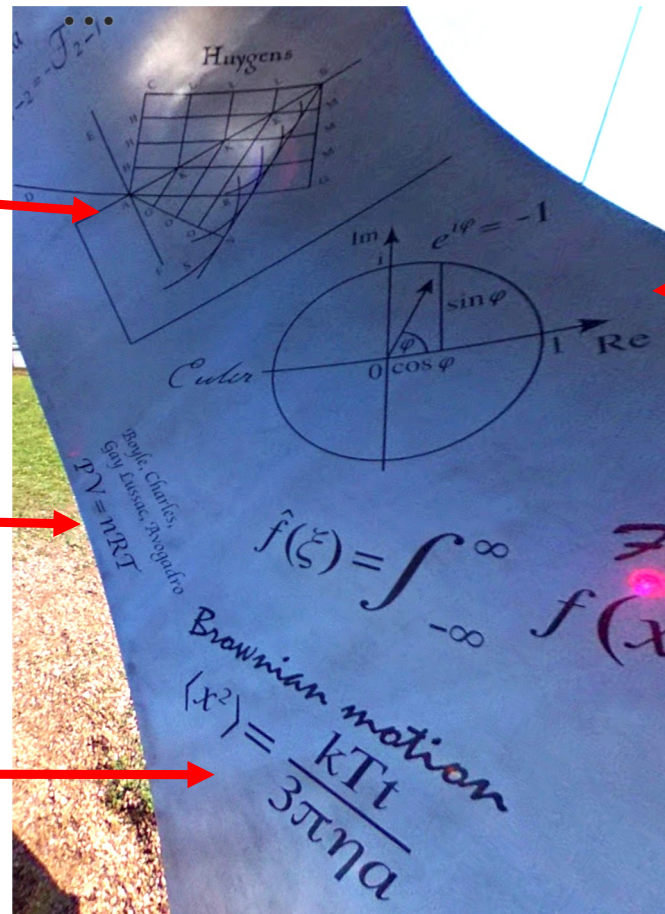
Simon Waldherr

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Huygens's
construction
of refraction

Ideal gas
equation

Mean squared
displacement,
Brownian motion



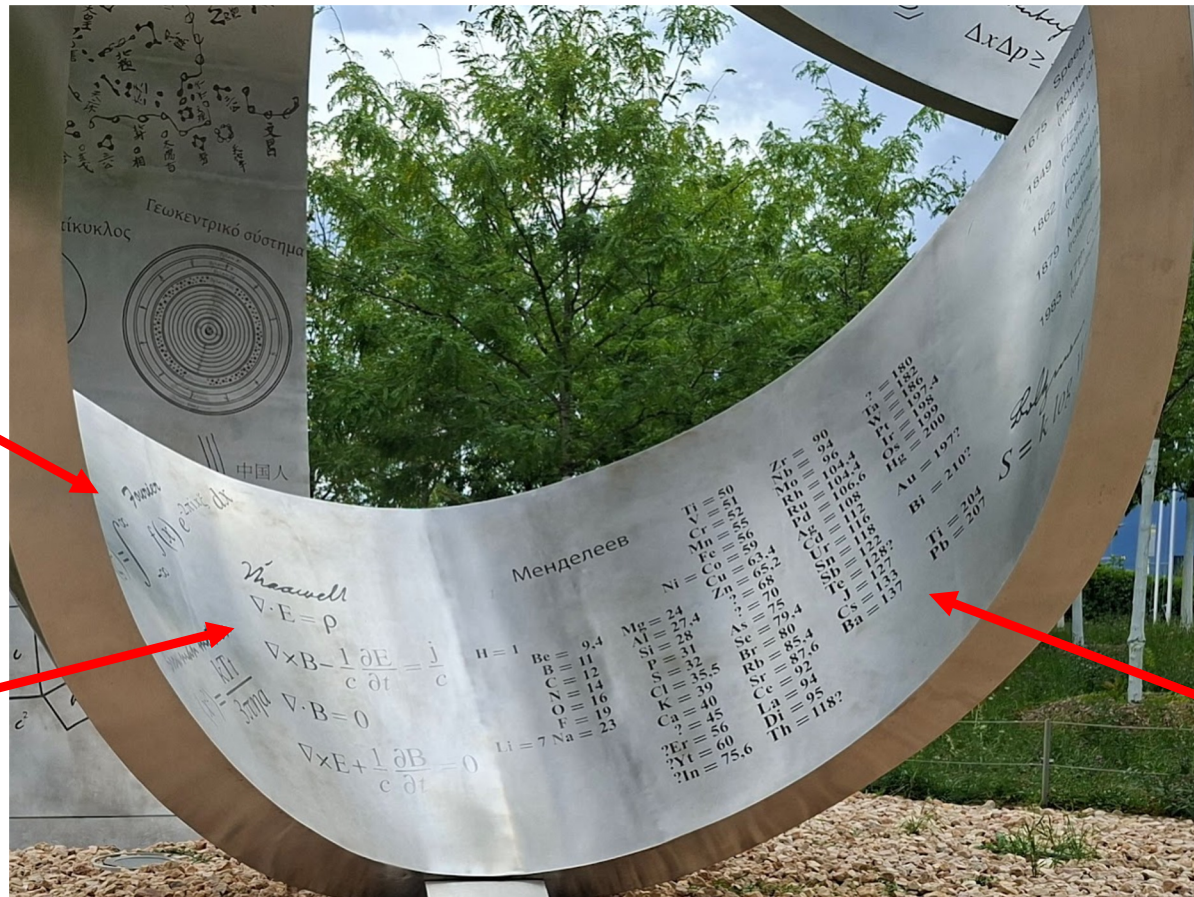
Euler's formula,
complex numbers

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Fourier transform

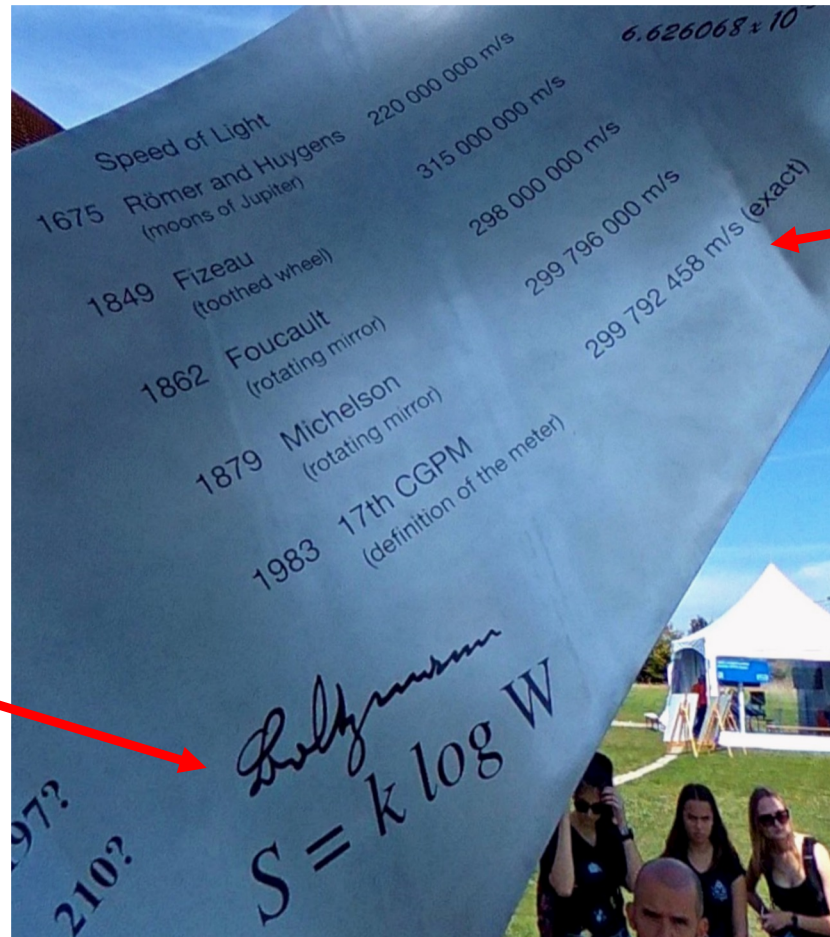
Maxwell's equations



Mendeleev,
periodic table

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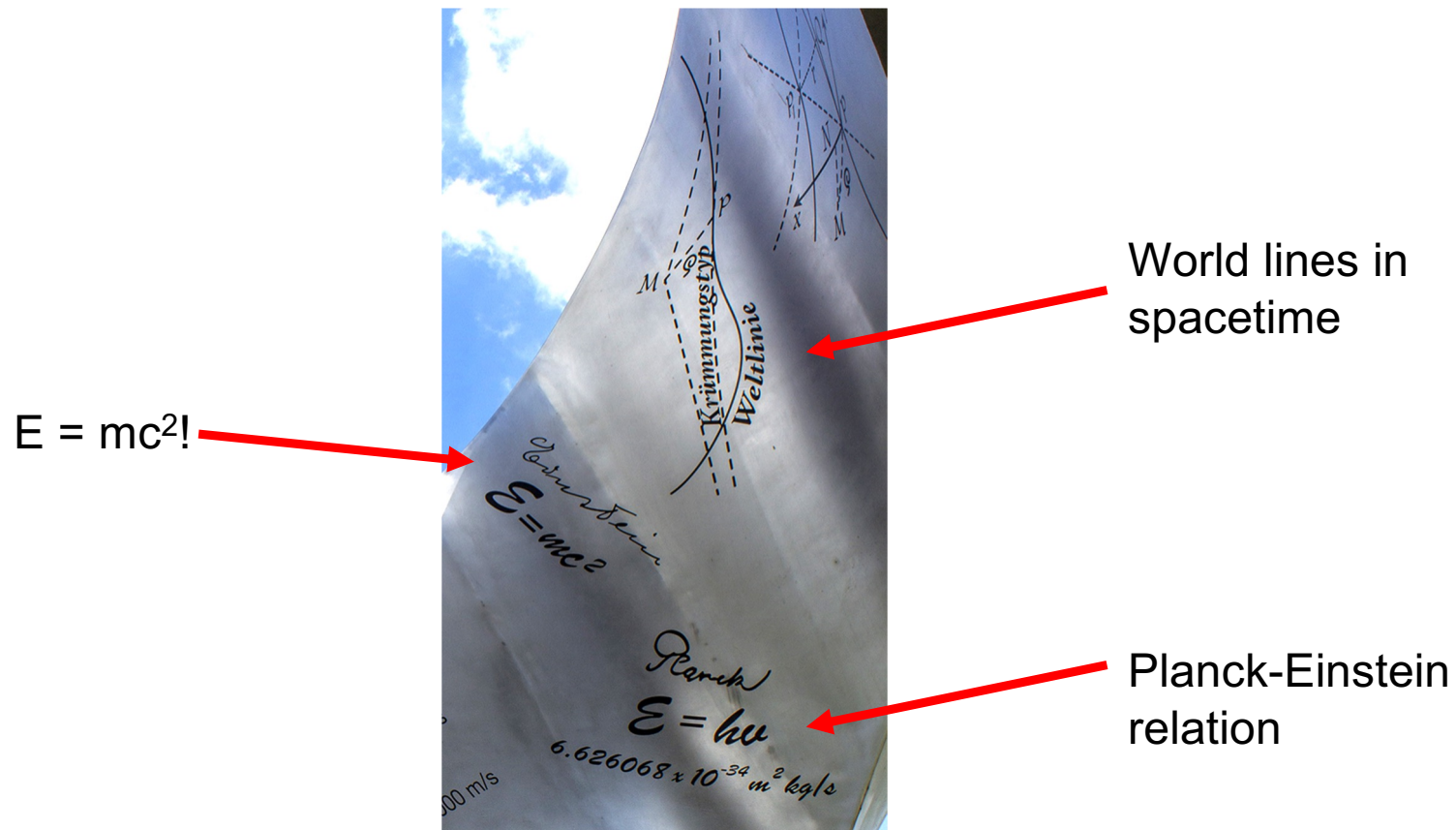
Boltzmann's
entropy formula



Speed of light
estimates

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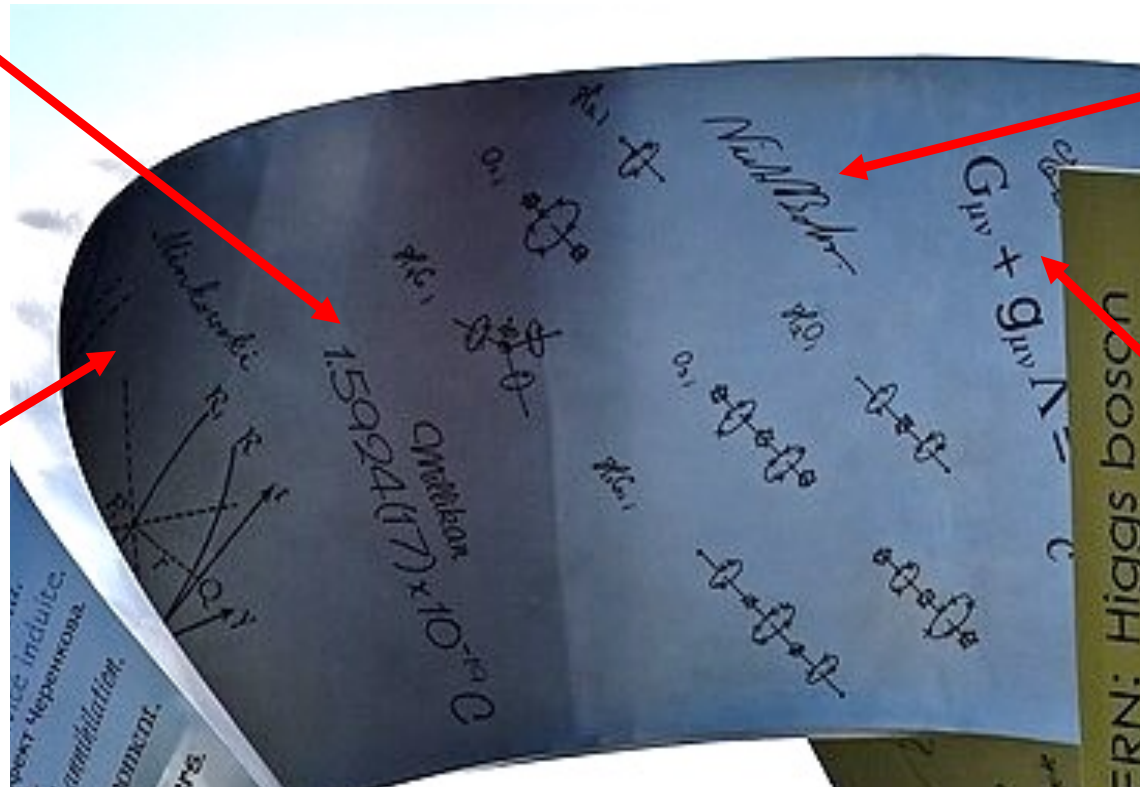


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Milikan
estimated the
charge of a
proton

Niels Bohr,
Molecular
configurations

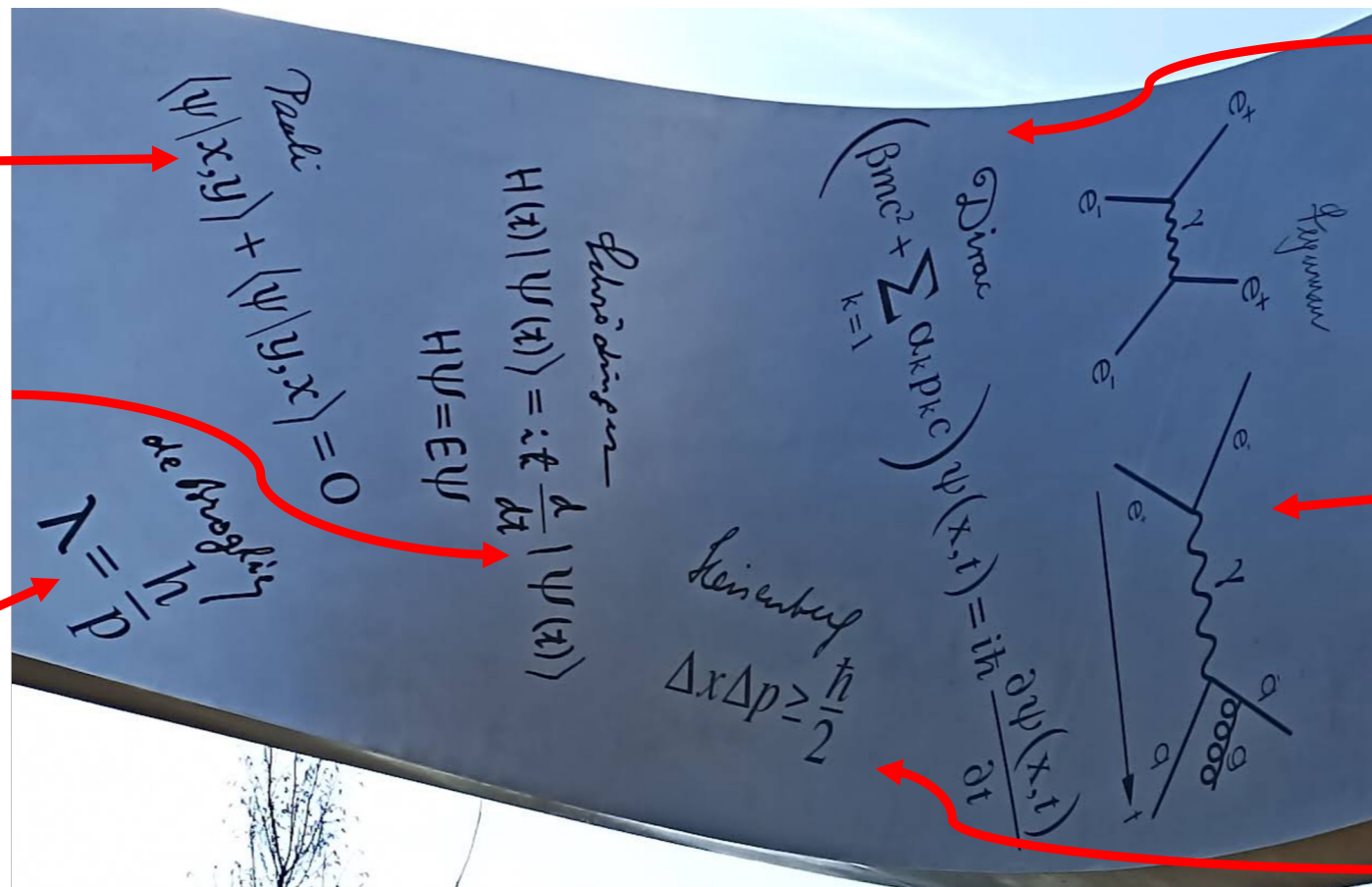


Minkowski,
special relativity

Einstein field
equations

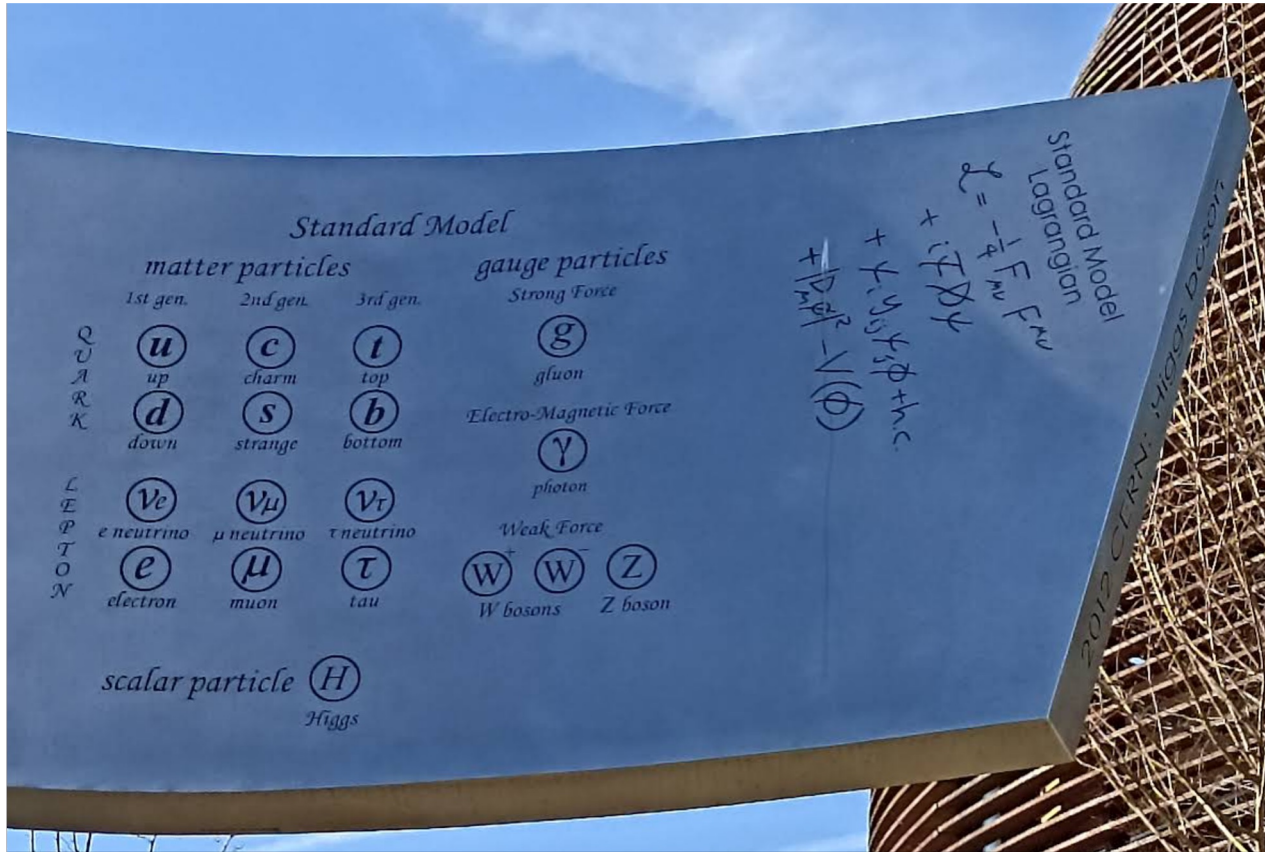
$$G_{\mu\nu} + g_{\mu\nu}\Lambda = \frac{8\pi G}{c^4}T_{\mu\nu}$$

Wandering the Immeasurable: Math side



Rafael Leite Patrao

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Rafael Leite Patrao

Thanks for listening!

