

<https://www.youtube.com/watch?v=QPAXzr6ihu8&t=1650s>



The image shows a blue banner for the Nobel Prize in Physics 2022. It features three portraits of the laureates: Alain Aspect, John F. Clauser, and Anton Zeilinger. Below each portrait is their name and affiliation. The text in Swedish and English describes their work on entangled photons and quantum information science. A hashtag #nobelprize is visible on the left, and a small red logo with 'SC' is on the right.

**Alain Aspect**  
Université Paris-Saclay & École Polytechnique, France

**John F. Clauser**  
J.F. Clauser & Assoc., USA

**Anton Zeilinger**  
University of Vienna, Austria

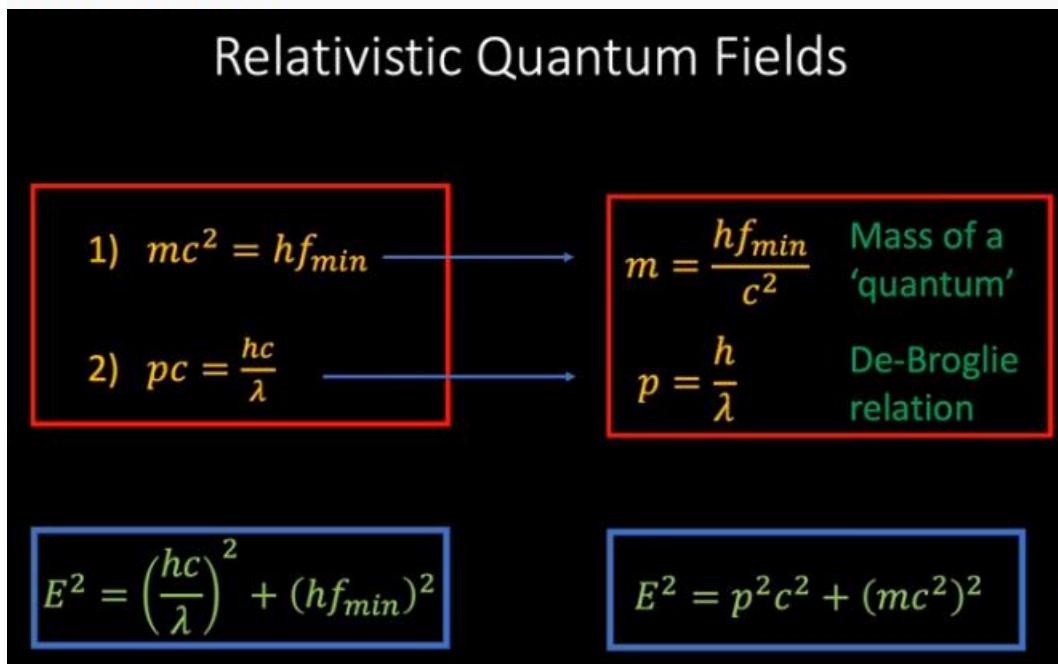
*"för experiment med sammanflätade fotoner som påvisat brott mot Bell-olikheter och banat väg för kvantinformationsvetenskap"*

*"for experiments with entangled photons, establishing the violation of Bell inequalities and pioneering quantum information science"*

#nobelprize

The Nobel Prize in Physics 2022 | Quantum: The Bohr and Einstein Debate | Bohr's view won

## Relativistic Quantum Fields



The diagram illustrates the derivation of relativistic energy-momentum relations. It starts with two quantum mechanical equations:  $mc^2 = hf_{min}$  and  $pc = \frac{hc}{\lambda}$ . These are used to derive the mass of a quantum  $m = \frac{hf_{min}}{c^2}$  and the De-Broglie relation  $p = \frac{h}{\lambda}$ . Finally, these are substituted into the relativistic energy-momentum equation  $E^2 = p^2c^2 + (mc^2)^2$ , which is shown to be equivalent to  $E^2 = \left(\frac{hc}{\lambda}\right)^2 + (hf_{min})^2$ .

1)  $mc^2 = hf_{min}$

2)  $pc = \frac{hc}{\lambda}$

$m = \frac{hf_{min}}{c^2}$  Mass of a 'quantum'

$p = \frac{h}{\lambda}$  De-Broglie relation

$E^2 = \left(\frac{hc}{\lambda}\right)^2 + (hf_{min})^2$

$E^2 = p^2c^2 + (mc^2)^2$

By doing so, you prove "what the particles are made of"? No, rather you confirm my hypothesis that matter, elementary particles are built by packing-packing the dimensions of space-time

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# Massless Particles

$$m = 0$$

Mass of a  
'quantum'

$$p = \frac{h}{\lambda}$$

De-Broglie  
relation

$$E^2 = \left(\frac{hc}{\lambda}\right)^2 + (hf_{min})^2$$

$$E^2 = p^2c^2 + (mc^2)^2$$

So, what is a particle?



35:13 / 37:10 • So, what... >



# So, what is a particle?

A particle is the smallest possible vibration (quantum) of a quantum field

## Particles with mass

$$\frac{\partial^2 \Psi}{\partial t^2} - c^2 \frac{\partial^2 \Psi}{\partial x^2} = -(2\pi f_{min})^2 \Psi$$

$$m = \frac{hf_{min}}{c^2}$$

## Massless particles

$$\frac{\partial^2 \Psi}{\partial t^2} - c^2 \frac{\partial^2 \Psi}{\partial x^2} = 0$$

$$m = 0$$

By doing so, you prove "what the particles are made of"? No, rather you confirm my hypothesis that matter, elementary particles are built by packing-packing the dimensions of space-time.

# What is real?

A particle is the smallest possible vibration (quantum) of a quantum field

## Quantum Field

Electron field

Electromagnetic field

Quark field

## Quanta

Electron

Photon

Quark

+ Higgs field – higs-boson...nicht wahr

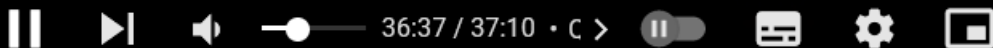
## Questions to answer

What determines the minimum frequency?

Why do some particles have mass? And others do not?

How do quantum fields interact with each other?

What is the relationship between matter and anti-matter?



And still, physical science is getting closer and closer to my HDV, that matter, particles are (by the Universe itself) built from the dimensions of two quantities (Time and Length) by their "curving-packaging". Sad... for 22 years I have been presenting my wonderful hypothesis on the internet and you are deliberately avoiding it. It cannot be silently skipped over, unseen and silenced by ignoring it. No..., you can't, you can't forever. You must either defeat HDV's arguments or accept it and begin to refine and complete it.

"Our Universe", after the big bang, is a location in a Euclidean flat infinite 3+3D space-time, (before the big bang, flat, infinite, without matter, without the flow of chow, without expansion, how else if it is infinite), it is the final location that begins-occurs with the big bang, which is not an explosion, but the change of the previous state to the subsequent state, to the state of plasma, which is an ultra-high curvature of the dimensions of two quantities, space-time. It is a boiling vacuum, it is a foam of dimensions, i.e. an extra curved environment; that is, it is a finite location in an infinite flat time-space that "floats" in that basic Euclidean network - a grid, a wonder of non-curved dimensions. This basic "web-yarn-grid" in the state before the big-bang is still around us, it exists not only before the big-bang but also after it, it is around us and we and the whole complex universe with matter and galaxies and black holes and gravitational fields, we float in that flat 3+3D web of spacetime. The beautiful thing is that even a mathematician will be amazed when he doesn't have to investigate "how" big is the singularity = "locality-our Universe" and will have to recognize the possibility of proposing reality, that in an infinite 3+3D non-curved space-time there is a finite location arbitrarily large, is almost-infinite and almost-zero... Not even mathematicians can determine how big a "unit" is - a unit interval of length or time in an infinite grid-net-yarn of dimensions. That Location is "our Universe"...only one. No nonsense like "multiverses. And the Big Bang was not the creation of the Universe "from nothing" (as string theorists claim), but it was "jump = jump change of state" from previous to subsequent, "jump" from a totally flat space-time to a totally curved state of space-time. The pre-Flag state of flat dimensions suddenly changed to a finite location (unknowable how big) with extremely crooked dimensions that 13.8 billion years unpacking !!!!, a) they unfold, not expand into a global "real-structure" (the sky full of galaxies and everything we see "floats" in the variously curved dimensions of every location we see) and b) they are packed !!!!in the microstructure = in the microworld into matter !!!!, they are packed (those dimensions) after the big bang into packages = elementary particles and they are further packed into conglomerates, i.e. into atoms, molecules, into compounds chemical-biological. Etc., etc....etc., as I have described

elsewhere for many years. According to physicists from Di Valentino's team, this anomaly could be explained if the expanding universe had a spherical shape. Which is the same, even better, if the expansion is explained by the "unpacking" of that "starting" curvature of the space-time dimensions in the Bang = in the stop state in which time begins to flow and expand = the space and time dimensions begin to expand; this state of space-time of ultra-high curvature of the dimensions of time and length, is plasma, is a state of post-Flash plasma foam. In this foam, the "boiling vacuum" on Planck scales are recruited by warping packing mini-localities = "frozen states" - waveballs-wavepackets that become elementary particles in our human concept, packets that manifest themselves with properties such as mass, spin, charge, etc., etc. (Each particle has a different number of packed dimensions and a different curvature of these; this determines their properties). Then, such an initial state of the Universe, the space-time after the Big Bang, expands further and further and simultaneously collapses, expands "out" "of the singularity" and collapses "into itself" into matter. That is, there is a clustering of elements (mass particles such as quarks, leptons, then on baryons, resonances, then to atoms, then to molecules to compounds - that's "packing" crooked packages into more complex conglomerates, and this happens not only after the Big Bang, but the packing still happening today; complex mass of protein, DNA.. We still have a Planck vacuum around us today, continuously throughout the history of this ! Universe..., all around us in the boiling vacuum of planck and sub-planck scales, are happening the same marches as a million years ago, as a billion years ago, and 14.24 billion years ago right after the Big Bang. This entire "Local Universe" with curved dimensions is nested in a 3+3D grid, in a network of flat Euclidean dimensions. The universe "floats" in an infinite flat space-time. And at the same time, unpacking...and packing is also taking place from Třesk. What type of curve is that the unpacking is for the global version, I don't know, and I thought 35 years ago that this unwrapping is parabolic...; Summary: it means that the Universe is expanding, sorry, unfolds not only (!) after the Big Bang and after the era of relic radiation, but still, to this day, all around us ( gravitational curvature is still around, unwrapped, other curvatures, electromagnetic, etc. there are still commonly .., only the most "global" 3+3D space-time field, gravity, is the most expanded and it is immeasurable how much-little the curvature approaches absolute flatness- straightness.

JN, 14.10.2022