

New approach to a unified theory of our universe

This is a new approach to explain our universe without magic and in compliance with all known observations and experiments.

Please take your time to really put your head into this new theory, as it requires to forget quite a lot about how we all believed that the world works.

Claims

- all commonly known experiments for relativity can also be explained with this theory (see the section Experiments & Observations)
- lots of observations that couldn't be explained with relativity can be explained with this theory
this includes entanglement as well as effects today thought to be caused by dark energy and dark matter
- no violations of the laws of physics
- there is the chance to come to a unified theory of physics with quantum mechanics
- electromagnetic waves, electric near-fields, magnetic near-fields, and free electrons influence each other and with that the universe way more than formerly thought

No magic involved

- no limit of velocity for matter or light
- no relativity of time
- no simultaneity loss in different inertial systems
- no relativistic mass increase
- no length contraction depending on velocity
- no ether
- no god, no string, no parallel universe or higher power
- no magic

Basics of this theory

- causality is given for all physical effects
- conservation of energy
- conservation of electric charges
- Newton's third law is valid without any limitation,
the reaction is immediate, there is no time retardation for forces
(in today's physics quasistatic electric and quasistatic magnetic forces act with time retardation)
- everything can fly at any velocity (no limit at the speed of light)
- light propagates at the speed of light relative to its origin (in compliance with the emission theory)
- there is no mass-increase, no length contraction, and no time dilation no matter at which velocity
- electric near-fields, magnetic near-fields and gravity are immediate (there is no transmission speed)
- electric near-fields, magnetic near-fields and gravity-fields (the fields itself) do not contain energy
- the light cylinder is only valid for energy carrying electromagnetic fields, it does not limit the quasistatic electric and magnetic fields
- antennas should be measured with not only one but three parameters: sensitivity for electromagnetic-waves, sensitivity for quasistatic magnetic fields, and sensitivity for quasistatic electric fields (of course each one depending on frequency)

Further reading

- **Theory**
 - 1. Particle acceleration in electric field
 - 2. Acceleration of charged particles in alternating fields
 - 3. Bremsstrahlung vs Synchrotron radiation
 - 4. Interference of electrons with light
 - 5. Unifying Lorentz force and Magnetism - extended Coulomb force
 - 6. The New Theory compared with present Physics
 - 7. Comparison of electron deflection
 - 8. Information Transfer
 - How did this Theory evolve
- **Experiments and Observations**
 - Analysis of existing experiments
 - F Bertozzy experiment
 - OK De Sitter double star observation
 - OK Michelson-Morley
 - OK Sagnac effect
 - OK Synchrocyclotron

- OK Tunneling of EM waves through prism slit
 - OK Wave-particle duality
 - TODO Ewald-Oseen extinction theorem
 - TODO Ives-Stilwell
 - TODO Kennedy-Thorndike experiment
 - Astrophysics
 - 1. Pulsars
 - 2. Jets
 - 3. Size of the (observable) universe
 - 4. Gravitational bending of light
 - 5. Apsidal precession
 - 6. RF resonant cavity thruster
 - Extended Coulomb force
 - Bar magnets
 - Force on a Current-Carrying Conductor
 - Parallel electron beams
 - Skin effect
 - New proposed experiments
 - Revised Bertozzi Experiment
 - Sagnac experiment revised
 - Velocity measurement of accelerated electrons
- FAQ

Extended Coulomb force formula

The Lorentz force can be defined between 2 particles with charges q_1 and q_2 as solely based on their relative speeds and distance:

$$\vec{F}_1 = \frac{q_1 q_2}{4\pi\epsilon_0 |\vec{\Delta r}|^3} \left(\vec{\Delta r} + \frac{\vec{\Delta v}}{c^2} \times (\vec{\Delta v} \times \vec{\Delta r}) \right)$$

Accordingly the total force on one particle with charge q_1 can be defined as resulting force of interaction with all other relatively moved charged particles $q_2 \dots q_n$ as

$$\vec{F}_1 = \sum_{n=2}^{\infty} \frac{q_1 q_n}{4\pi\epsilon_0 |\vec{\Delta r}|^3} \left(\vec{\Delta r} + \frac{\vec{\Delta v}}{c^2} \times (\vec{\Delta v} \times \vec{\Delta r}) \right)$$

where

$$\epsilon_0 = \frac{10^7}{4\pi c^2}$$

$$\vec{\Delta v} = \vec{v}_1 - \vec{v}_n$$

$$\vec{\Delta r} = \vec{r}_1 - \vec{r}_n$$

Disclaimer

Attention: Everything written on this website is "WorkInProgress".

This means, that you will encounter incomplete sections, erroneous details, maybe even false claims or wrong interpretations.

Anyway we are convinced that the overall concept and ideas of this new theory describe the world better and more accurate than any other theory that we know of. This results in way too many consequences, meaning that there are thousands of experiments that should be revisited, that lots of new experiments should be implemented and lots of new and old mathematical formulas need to be corrected to complete this new theory of our universe .. which we (Ottmar & Jan) simply can't do on our own. That's why we decided to publish our findings in this early stage (we are thinking for ~ 15 years about this until now).

We encourage everyone to give us feedback via email, please send your comments to: *theory @ kechel.de* or simply use our contact form.

Please don't expect us to answer your mails, but be sure that we'll incorporate any correct feedback (no matter if it supports or refutes this theory!) into this website.

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