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THE IMPULSE AS THE FUNDAMENTAL SOURCE FOR ALL FORMS OF MATTER FORMATION

JAN P. WILBERT

FOM, Leimkuglerstr. 6, 45141
Germany

Abstract

This paper will define a basic systematic for matter formation. Every energy change generates a displacement. A displacement is a movement of a matter element (change of location) relative to the previous location and its surroundings. This displacement depends on the initial source energy, its expansion in space, and the nature and distribution of matter in the propagation path. The density of the moving distribution or the propagation path may be influenced. The energy is considered in the broadest sense as movement.

Each energy change usually results in a displacement relative to the actual position or movement.

This displacement becomes the starting point and is better imaginable as the known impulse (or δ- Dirac-Function, -Impulse, defined by Paul Dirac). This impulse can be associated with the classical model of the Delta-Distribution.

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Matter is moved and can connect, depending on all environmental influence. Many of these displacements form in space a so called streaming field.

Many of these impulses in a sequence or together with a material structure and possibly combined with a transversal stream resulting from the streaming field, form or initiate in matter a wave like displacement. The impulse effect is responsible for any initial change and can produce wave effects with repeating displacements, reflections or environment depending oscillations. This connects the view of the quantum mechanics and wave effects. Displacements can have, depending on the matter distribution in the propagation channel, different speeds.

1. The initial impulse source might be under the core binding energy of the influenced matter and does not affect the outer element sphere, then the necessary threshold to produce an other influencing reaction has not been achieved. Greater initial displacements and space extensions influence more environment. This displacement receives a higher resistance. The probability for smaller (radial) initial displacing extensions in the same extension media, like, e.g., light, is higher to receive in the direction of propagation a lower resistance by the environment and travel faster. By adding transversal displacements in a propagation channel the resistance in propagation direction can even adjust to zero.

Certain impulse propagations prefer equivalent propagation medias depending on the initial energy change and its character. The matter for propagation and the outer environment is a media for propagation. Less energy is needed having the same initial force but a smaller distance between the single impulse carriers/collisions. “Smaller distance” shall be seen in relation to direct contacting matter elements, the different molecular/atomic core energy boundaries and space distances between the individual matter to be tided over for the propagating impulse. If the

impulse carriers are closer aligned and the initial displacement matches the necessary stimulation, the transfer of the impulse is faster. Dense impulse carriers open a faster connection and a higher amount of impulse transfers per time unit (having the same binding environment).

The observed faster space extension can locally be explained with this assumption, imaginable as a condensation effect. Outside the Galaxies less disturbing objects are in the streaming field. Turbulences build an area of greater resistance and possibly a not linearized movement, often show space light effects and slower transfers compared to places of faster space extensions. Next to the identical light initiating effect this can explain Einstein's limiting assumption of the constant speed of light for steady or moved observer in vacuum. Until today, we were not able to produce a significant additional acceleration to any moved light carrier that we would be able to validate Einstein's maximum speed postulation.

2. For all these transfers a certain cross section is necessary. This matter cross section depends on a surface size, a surface form, openings in the surface and the volume structure having opening, gaps, channels and tunnels. In the impulse propagating model, Planck's constant/quantum of action (compare [2]) could be interpreted as a minimum necessary cross section for the impulse trust necessary for a collision, deviated, e.g., from the Electrons cross section/sphere extensions. This would explain his interpretation of a quantized/interrupted flux. Other constants for quantum transfers would be derivable from the Atom cross section. Next to this, the mixture of density changes can, depending on the material in the propagation direction, split up in homogeneous modes and can compensate itself. Ring structures gain area, this means that a rotating body offers less surface to the environment, if the single elements orientate denser with their length side and grow caused to this effect in the same structured manner (compare [3]). Dipoles, e.g., ten-sides, can form a lattice structure comparable to a polarization filter. The impulse is transferred along these

structures. The right material mixture and stream around and through a conglomeration of matter, produces a greater former attraction (connection) than a rejection of the matter.

3. The refraction, well known from the experiment with a gap can be transferred to the inner radial tip of the atom core and shows the typical spheres as oscillation probabilities.

The amplitude and direction of the oscillation depends on the material complexity/structure and the streaming environment. More collisions form areas with higher temperatures and a higher probability for a (compare direction to Brownian Motion) reduced displacement/propagation. The lattice/crystal structure is, depending on the temperature, in motion. Any border of the lattice/crystal structure will produce collisions with passing elements, e.g., photons, and produces the typical gap samples (compare [4]). Heisenbergs findings can be transformed into the possible oscillations (including rotations) and distributed charges (avalanche) in the lattice/crystal material structures (compare [5]). Any gyro/peg top can change its main spinning direction by an arriving collision/impulse. Two gyros can hardly be connected because of their spin. Protons can be imagined having such a spin. With a very large impulse these spinning protons can be crashed into each other and can form a new element with very different chemical properties.

Imaginable is a 180 degree turned approximation to reduce the spinning momentum before reducing the core distance. Compressing and breaking materials leads to the distributed changes in “rest” or entangled position that produces an addition to the recognizable “white” noise and releases heat by stopping the movement spin momentum.

4. Following the simplification that a displacement produced by a source would produce a fusion, e.g., in a star/sun (compare [1], this would produce the same “outer” impulse (out means: outside the primary reaction), the assumption would apply that the mass of two fusion

elements or other sources of energy multiplied with a factor is equal to the produced force over reaction time. Adding on both terms of this equation the dimension, the well known Einstein equation can be extracted (simple atomic energy distribution parable model). In this maximum permissible value derivation the impulse shall be understood as a displacement of matter.

$$\text{impulse} \quad (\text{fusion}) = \text{impulse} \quad (\text{out})$$

$$\Rightarrow F \cdot t \cdot s = s \cdot m(t_2) \cdot v(t_2) \Rightarrow \frac{s}{t_2} \cdot m(t_2) \cdot v(t_2) = w, \tag{1}$$

compare

$$E = mc^2 \tag{2}$$

$v(t_2) = s$ speed of reaction elements (not always speed of light $c(t_2)$), $t =$ time of penetration, $t_2 =$ time outside the primary reaction, $F =$ Force, $s =$ Distance and in relation to the point of reaction, $w =$ work

$$v(t_2) \cdot p = Eg, \quad c(t_2) \cdot p = Eg.$$

For many fusion elements in one source the sum applies, observed at the source, in terms of a timely event and temperature

$$Eg = \text{Source} \sum Ec(t_2) \cdot pn[\text{Nm}] \tag{3}$$

$Eg =$ propagating Energy, absorption and reflection neglected,

$p =$ Impulse from a single fusion, $n =$ number.

Looking at several patterns of different electromagnetic spectra already collected, it seems obvious that we are watching the same effect from different perspectives.

The Huygen's principle, that defines any point of a wave front as a starting point of a new wave can be transferred by exchanging the word

“wave” by impulse. Any arriving impulse will produce new impulses if the impulse contacts an element. Typical wave propagations are produced by mater with an unsymmetric out shape.

Many of these single sources form the propagation energy as impulse originators.

5. Developing the idea of propagation by a displacement, heat, the movement, can be transferred by at least two elements. Two elements in movement (friction/compressing/collision) can be seen as one element that varies the total size until they split up. The propagating impulse sequence can be recognized as a wave varies in the wavelength.

Timely and locally shifted impulses can produce a periodic oscillation in the space in between. Cooled matter is stabilized in its shape. An example is growing ice flowers on a glass window. They grow in each direction with windings because of the reflected stream, rotating elements and streaming field. Following the former view with the centralized gravitation force these would grow only into the main direction.

6. So called gravitation waves are, according to the above explained theory, density changes in space caused by the chain reaction of the primary energy change and the propagation. So it is an environment change by wide collisions caused by the traveling impulse. The separation between wide collisions and close collisions shall be for the wide collisions a bridging of a room outside the core binding forces and for the second a direct contact of the thrust partners. A forward movement of a matter element that is longer than wide which receives a spin, can be, in a two dimensional projection, be recognized as sine/cosine shape. The well known periodic oscillation is a movement of a circular motion following one surface point.

The displacing wave movement, started by an outer compressing force/impulse will, depending on the individual propagating channel,

propagate, e.g., in material. Other displacements propagate better around material. The propagation is reduced or hindered by collisions, abrasives, reflections and scattering along the path. Macro effects are very comparable with Micro effects that are not easily visible.

The propagation of these reflections or other displacements are depending on the space filling material. Moons can be influenced in their orbit. The ecliptic is seen as a direct effect of the reflections, e.g., from the surface structure of the center planet. Reflections, in the human sensed form of light reflections, seem to reach their maximum speed in vacuum but smaller complex displacements could theoretically lead to faster propagations. Taking this into the consideration two points in space can have, depending on the material/structure in between, other connections in the sense of propagation speed. This would follow the theory about so called worm holes. The propagation acceleration is influenced by the path, the space filling and initiating mater.

7. In the first step the propagating impulse is responsible for quantum mechanic effects. In the atmosphere the propagation of an impulse produces in line of the propagation direction an influence that is imaginable as a Gauss distribution, (in a first approximation better a “meeple)”. The Gauss shape distribution seems to be caused by the form factor of the water molecules and partly of the moon in the propagation path. Small displacements can be measured at a place in line or aside the main propagation center called entanglement. The entanglement shall be in relation to the material distribution and distance. The displacement path depends, next to the propagation medium, on the environment, crossing streams and possibly widens. In other words the 3D path varies and this takes more or less time in the chosen time sequence (1), (2). Bell’s [6] “distance” entanglement or not local characteristics can be explained with the common streaming field in the larger space room. The streaming field is understood as all movements in space compared between two points in time (compare [2], [8]). It might be associated as a

stream. Due to the stream, elements do not rest in their position and can not reach the defined 0 Kelvin temperature point. Einstein's space curvature can be put in direct relation to the level of the streaming density, collisions in the denser sequence and the violence of the streaming field increases or is reduced. Time is seen as a man chosen fixed artificial apportionment, it is not in relation to the path taken by the elements/matter. The impulse can be transferred in different speeds in relation to the matter and density constellation in the travel path. Recognized time differences by measuring the time in moved systems are explained with the differences in the environment/streaming field, impulse transfer and exchange with the measuring equipment. It is not a faster sequence of a time sequence.

For calculation purposes different displacement sources can be defined that propagate though the density displacement. The propagation will depend on all material element zones in the propagation path and might be reflected. All changes in the environment produce reflections. Any change in the matter density shall be a material element zone.

The arriving displacement is depending on the acceptance in a relation between absorption, transfer and reflection. The absorption and reflection will be effective with a force at the material element zone.

The Force that would react with the matter could be defined as [8]:

$$F = p \cdot v^2 \cdot A \frac{\mathrm{kg.m}}{\mathrm{s}^2}, \tag{4}$$

p = Density,

v = Violence of the individual matter,

A = The concerned surface that will be described in more detail.

The surface will increase, if we consider the penetration depth. The displacement delivers the impulse that is in direct relation to force that is effective to the matter. To achieve the same calculation outcome as

Newtons law:

$$F_g = G\frac{M_1 M_2}{r^2} \tag{5}$$

delivers. The force between two matter spheres in Space (5) will be replaced by two similar forces following (4) that are heading in from the opposite direction (see Figure 1). The method using (4) offers many more parameters to install a very detailed reality simulation including the replacement for the relativistic amendments.

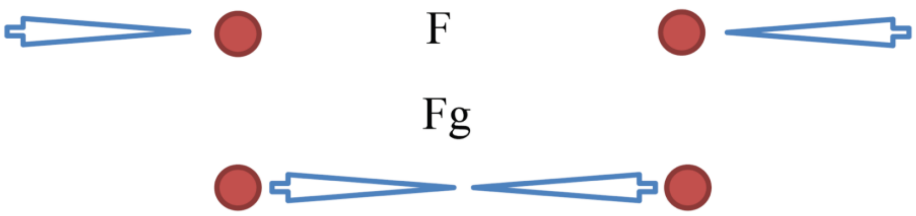

Figure 1.

Next to crossing streams, mainly the reflection produces the oscillations depending on the material structure in the displacement propagation path. The streaming field is able to feed rotating matter elements that falls into stable oscillations with an alternating reflected displacements to form a wave effect. One of the major problems of the theoretical physics is that its two pillars, the general theory of relativity and quantum physics, do not fulfill the correspondence principle in their relation to one another and therefore this new approach is necessary.

Conclusion

The paper explains that traveling impulse, based on displacement, this is the connecting cause for any matter formation. Not a radial

gravitational force is the cause of matter formation. All the space filling elements in the streaming field environment are influenced ("moved") by the impulse based displacement, known wave like extensions can be initiated and this can be observed in many images, e.g., gap interference samples. The entanglement, that is known from the quantum theory, is understood to be in relation to the material displacement in or along the impulse traveling path. The traveling path and width depends on the source of the material displacement, propagation medium, entanglement, collisions and surrounding environment. Einstein's space curvature can be set in direct relation to the level of the streaming density. The traveling path with its impulse propagation characteristics is responsible for the speed difference of the propagation. The streaming field answers Einstein's question about the source of not local characteristics. The behavior of all elements in the propagation space are the same without any disturbing element in the path.

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