



The Science of Gunbuster Explained

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The Synthesis of Ether and Quanta in Particle Physics

Kentaro Onizuka's literal translation. ed. Kyle Anulacion

*It is cited on the Gunbuster index (a fansite) that this paper was written in 2021. High energy physics is also known as particle physics.

This text is a parody of some famous paper on high energy physics.

The original text in Japanese does not make clear sense.*

Considering the similarity between the functions of quantum mechanical operation and the distribution function of statistical physics, the quantum mechanical operation is roughly represented as below:

$$Z = \int_a^b \exp\left(\frac{1}{h}\right) D|\Phi|$$

If we regard this as a complete conception of the situation, it is exactly the result of GAZE theory which WALL and YANN proposed, and the WINEBERG-SALAMM theory that describe the strong interaction*; and the quantum chromo-dynamics are regular under internal canonical modeling.

GAZE theory < Gauge Theory

Others I am not sure To tell the truth, I majored nuclear

physics

Clearly, for this well known example, a phase transition region in the vicinity of 10^{13} GeV does not change the hierarchical structure that implies the kinetic variable ϕ , but is instead a classical integration operation.

GeV -> Giga Electron Volt. A unit of energy in High Energy Physics.

However, toward the end of 20th Century, these unsolved problems of elementary particle theories, the superstring theories, the strange properties of unitary transformation about the super-symmetric HILVEL space, and the local space canonical representations are merged into one.

HILVEL space < Hilvert space

In 1995, according to Tanhoizer's first paper "The ether electrodynamics of objects in motion," Ether corresponds to the

particle of the HIGGS field in W/S theory, and vacuum space is defined as the ground state of the field. In general, particles of zero or integral number spin follow BOZE-AINSTEI statistics, and others follow FERMI/DIRAC statistics. The Planck constant and gravitational constant are determined when high dimensional space automatically decays into an N dimensional phase division.

BOZE-AINSTEI statistics < Bose-Einstein statistics.

FERMI/DIRAC statistics < Fermi-Dirac statistics.

The scattering amplitude that describes the scattering process turns out to be an analytical function in the complex plane when we require the causation of complex intensification, which by applying CORSEY's integration theorem, turns out to be the TANHOIZER Division function.

>From Kazumi Amano's paper published at the Conference of All Japan Highschool Physics.

Editor's Note (with trans. from the German fan-translation):

This note will in short explain a few terms mentioned in Kazumi Amano's paper. These terms fall under particle physics, as well as field theory and quantum mechanics.

WALL/YANN, WINEBERG/SALAMM.

*WEINBERG-SALAM THEORY (1971). This theory actually describes weak interaction. Specifically it is a unified field theory of two of the four fundamental interactions of nature: electromagnetism and weak interaction (nuclear physics). The unification energy is in the vicinity of 246 GeV--and at this temperature (approx. 10^{15} K), the two forces would merge into an electroweak force. This force, or interaction, between elementary particles is outlined in the **Weinberg-Salam theory**.

GAUGE THEORY, YANG-MILLS THEORY (1954). Weinberg-Salam theory and QCD owe their successful formulation to **Yang-Mills theory**, which extended the concept of **gauge theory** (a type of theory where the Lagrangian is invariant, meaning to say that it does not change under local transformation; thus any special formulation is called a gauge) for abelian groups (called commutative groups in algebra [i.e. $x * y = xy = yx$]) to nonabelian groups to provide an explanation for strong interactions.

Quantum chromodynamics (QCD) actually exists. (lit. Quarks have a "colour" and "flavour" [in particle physics, the species of an elementary particle] as states.) QCD states that quarks and gluons, the fundamental particles that make up composite hadrons (viz. protons, neutrons),

exhibit properties of interaction that are mainly “color confinement”, where quarks and gluons (the exchange particle between quarks) color charged (analogous to electric charge, wherein integer states exist; the term has nothing to do with color and it is a generic term) cannot be isolated, and ergo cannot be directly observed, and “asymptotic freedom”, where the strength of interactions between quarks and gluons decreases as the interactions’ energy scale increases. It is interesting to note that color confinement is not theoretically proven, even though it is a consistent experimental observation.

Superstring theory exists. I recommend you read “A Brief History of Time” by Stephen Hawking.

Hilbert space. There is also that! (Hilbert space is an abstract notion of Euclidean space.)

BOSE/EINSTEIN-statistics. It’s an actual thing. There are statements about the nature of gases at extremely low temperatures (millionths of a degree above 0 K, or absolute zero), and could only until recently be confirmed experimentally.

FERMI-DIRAC statistics. It’s an actual thing, too. It’s about particles at extremely high energy, e.g. in particle accelerators.

The Theory of Ether Space

It is a common saying that there is the ancient physics of Newton, the classical physics of Einstein, and the modern physics of Tannhauser. At the end of the 20th century, physics was revolutionized by the publication of “Theories of Ether Cosmology,” a paper by Dr. Tannhauser. He predicted the existence of space as an ether field, leading the way for **Warp Theory**, and the Tannhauser Gate.

Contrary to the instrumental definition of outer space as a vacuum and black holes are near*-absolute zero in black-body radiation, outer space is in actuality an ether field.

***Ether theory** came from scientist Robert Boyle, who proposed that light propagated through a medium called ether, or luminiferous aether. It was proposed in order to explain the observation that light propagates through a spatial vacuum. The idea of aether was explored and alluded to by Einstein in the late nineteenth century in order to interpret some parts of his theory of general relativity as well as his explanation of Newtonian absolute space. Specifically, the results of the Michelson-Morley experiment (in which they were trying to detect aether through the propagation of simultaneous light at different distances, since the Earth was proposed to experience some form of aether wind or aether drag) proved that the aether did not exist, or at least was not needed. The idea of aether has since been pushed out since the most commonly agreed upon explanation of the propagation of light comes from wave-particle duality

theory, in quantum mechanics. However, a physical theory to replace aether theory still remained to be made.

Black-body radiation, that is to say, the thermal electromagnetic radiation emitted by an idealized opaque, non-reflective body that absorbs all radiation falling on it at all wavelengths, called a “black body”, has an emissivity that is characteristic upon temperature. All normal (Baryonic) matter emits electromagnetic radiation when it has a temperature above absolute zero, called thermal radiation, however it is the proposed case that black bodies emit electromagnetic radiation at 3 Kelvin above absolute zero.

Tannhauser Gates are the only way for ordinary substances to surpass the speed of light. In a Tannhauser Gate, two rotating black holes (meaning that they bear angular momentum) with overlapping Schwarzschild radii, their event horizons, are capable of warping their ergospheres (the area outside of the Schwarzschild radii), manipulating their angular momentum. The end result is that a singularity becomes **naked**--a hypothetical gravitational singularity (viz. black holes) without an event horizon. To elaborate, black holes with event horizons have gravitational singularities that cannot be directly observed, because baryonic matter and even light cannot escape. However, a naked singularity can be observed. This is called a Tannhauser Gate.

Warp Theory's Tannhauser Gate gave way to faster-than-light-speed travel, or **c-plus travel** (c is a constant in physics, of the speed of light). The proper name is 次元波動超弦迎起縮退半径跳躍重力波超光速航法, or “Dimensional Wave Superstring Rotational Reaction Degradative Radius Jump Gravitational Field Super-Light-Speed Navigation”. (**Supersymmetric string theory**, or superstring theory, is based on string theory--that the fundamental constituents of reality are strings of the Planck length that vibrate at resonant frequencies--and that these strings are supersymmetric, meaning that a relationship, or rather mathematical transformation, is conjectured between bosons and fermions. The five separate superstring theories collate into what is known as M-theory.

By enlarging the diameter of the Tannhauser Gate located within a ship's **degeneracy generator**, an entire ship can be enclosed in a subspace field; this allows it to simultaneously jump through both space and time.

Ice Seconds

“Ice seconds” is fuel used in spaceflight and machine weapons. They are isotope crystals of H_2O that mankind discovered, causing gravitational degeneration at room temperature. The majority of their mass at rest exists within the dimensions of mass in motion.

This means that

$$m\text{-sub-KE} > m\text{-sub-GE. This means KE} > \text{GE,}$$

violating the laws of the conservation of energy.

However, the solution to this may be that they have nonzero angular momentum at rest.

Due to their redshift phenomenon, they emit strong red light even in pitch darkness. Thus, they earned the nickname “a space woman's jewelry”.

Redshift is a phenomenon where an electromagnetic radiation's wavelength increases because of the increasing distance between two points; the reverse is blueshift, where it decreases. This is known as the **Doppler effect**. Redshift is most commonly observed with stars, known as cosmological redshift. In the special case of ice-seconds, due to their strong gravitational fields, they distort spacetime, producing a gravitational redshift. This does not affect mass, as mass is irrelevant in velocity, but it affects time.

Sub-lightspeed Phenomena

At sub-lightspeed, phenomena such as starbows and the Rip van Winkle effect occur.

Seen at the inside of Tannhauser Gates, giant extraterrestrial rainbows are called “starbows”. Starbows are explained through spacetime linear transformations, called Lorentz transformations, created by deductionist Hendrik Lorentz.

Lorentz transformations take root in the idea of a frame of reference, in which i.e. two points of references A and B on the x-axis are 10 meters apart: A-sub-X and B-sub-X can be conversely explained through a system of equations that state $A\text{-sub-X} = B\text{-sub-X} + 10\text{m}$. The Lorentz transformation transforms between two reference frames when one is moving with a constant velocity with respect to the other, taking the notion that any observer always sees light traveling at the same speed (called special relativity) into account. Light is a constant denoted as c , which we can use for the general physics equation $d = vt$. Thus

$d = ct$ is equal to $d' = ct'$,
where d = distance and t = time.

Thus, distance as a spatial observation is obviously different, but between two objects, they experience time differently. Lorentz transformations are another way of interpreting Galilean transformations, wherein the frames of references are usually used in classical mechanics, where the velocities of two objects are constant but different (where I-sub-V is 0 and J-sub-V is V, where I and J are arbitrary names, and V is an arbitrary constant). (In this setting, the Lorentz factor is 1.)

Thus, stars concentrated ahead of a ship give off seven-colored rings, due to the Doppler effect (where frequencies, inversely proportional to wavelength, either increase or decrease with respect to a stationary observer when the object emitting that frequency is moving).

The Rip Van Winkle effect borrows its name from “Rip Van Winkle”, an 1819 short story by Washington Irving about a man who falls asleep for 20 years on the Catskill Mountains and misses the entire American Revolution. The **Rip Van Winkle effect** explains how time dilates for an object approaching lightspeed, wherein one of the episodes of Gunbuster shows that 7 years had passed since the near-lightspeed Luxion was lost, but 2 days had only elapsed on board the ship. When the Luxion investigation’s time went 12 seconds over, 6 months had passed on Earth. The Luxion, despite having a degeneracy generator (referencing gravitational degeneration of the naked singularity produced by a Tannhauser Gate) working at full capacity was subjected to infinite acceleration due to its vanishing motor being destroyed.

*The Rip Van Winkle effect in this sense is fictional; today, the named effect is collated towards behavior and biopsychology. In special relativity, the Rip Van Winkle effect is called time dilation, illustrated by the “twin” paradox, in which two identical twins find that, once one of them leaves Earth and travels to the nearest star and back at near-lightspeed, that the stationary twin had aged 20 more years. This is no paradox in the sense that it is a logical contradiction, but with the application of understanding time dilation and relativity, the paradox is actually correct, however overstative.