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There is no true theory in science

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Abstract

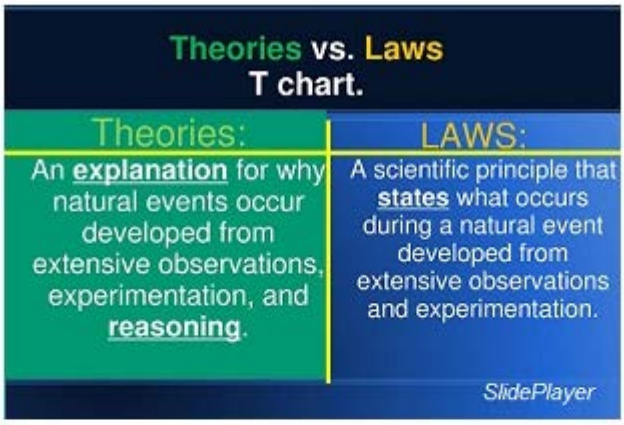
There is a lot of topics in physics about laws, theory, and validation. What is referred to in physics as law and theory is man's understanding of physical phenomena. With the advancement of knowledge, man gets closer to the facts, but he cannot understand all the truth.

Keyword: physical theories, physical laws, General relativity, relativistic jets, singularity

The validity of science

There must be a criterion for evaluating the correctness or incorrectness of a statement. There is such a criterion in mathematics and logic, and the theorems are provable because their criterion is fixed and deals with fixed, immutable, and finite principles and rules. But the criterion of science is empirical evidence. Because the number of empirical evidence is not clear, the criterion for evaluating scientific theory is limited to current evidence, and we are unaware of future evidence. So there is no such thing as a true theory in science because no theory can answer all the questions. But we can speak about a more accurate and precise theory or stronger and weaker. For example, the theory of general relativity is more accurate than Newton's universal law of gravitation. But

this does not mean that the general theory of relativity has an eternal validity, and we do not need a stronger theory than general relativity. However, there are criteria for measuring whether a theory is scientific or not, which is not discussed here. Figure 1.



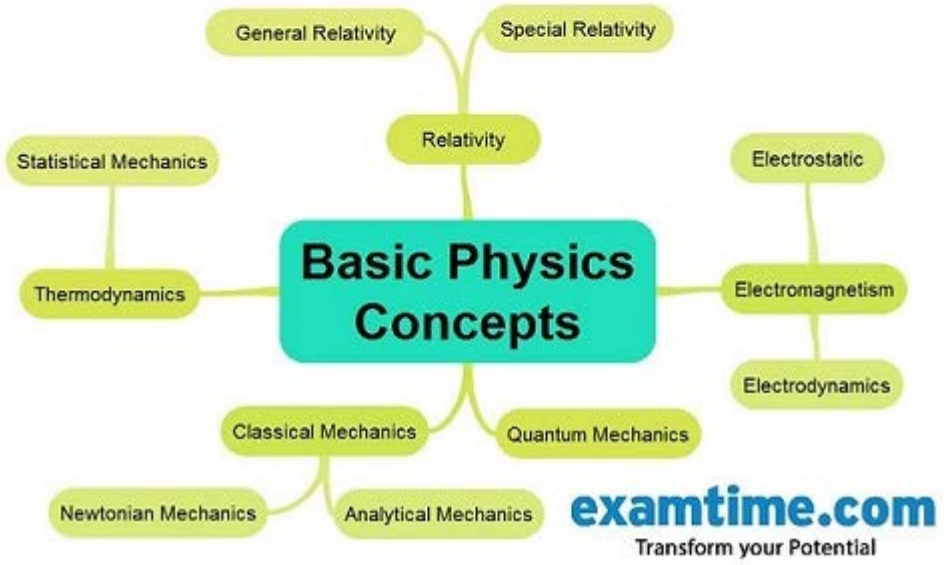


Figure 1

The difference between the knowledge of physics and the laws of physics

Note the following two principles:

Special relativity principle: The laws of physics are the same in all inertial frames of reference.

Equivalence Principle: The laws of physics are the same at each point in a uniform gravitational field as in a reference frame undergoing uniform acceleration. The emphasis of these principles is

the same as physical laws, but they do not specify what the laws of physics are. What are the laws of physics really? We do not know the exact answer to this question, because understanding the laws of physics is an important part of the researches. In fact, relativity is an observational theory and does not explain the physical cause of events. Gravity causes the formation of stars, but the brightness of stars due to the interaction of particles in the center of the stars is a topic of quantum mechanics. General relativity cannot explain what happens inside a black hole or what gravitational singularity is. In general, to understand the laws of physics, one must know the structure of matter and the interaction of its constituent components. The laws of physics are exactly where they are not visible. That is, the basic laws of physics are in the hidden layers of physical phenomena, outside the realm of relativity, and quantum mechanics has not yet entered the hidden layers of quantum phenomena. Figure 2.

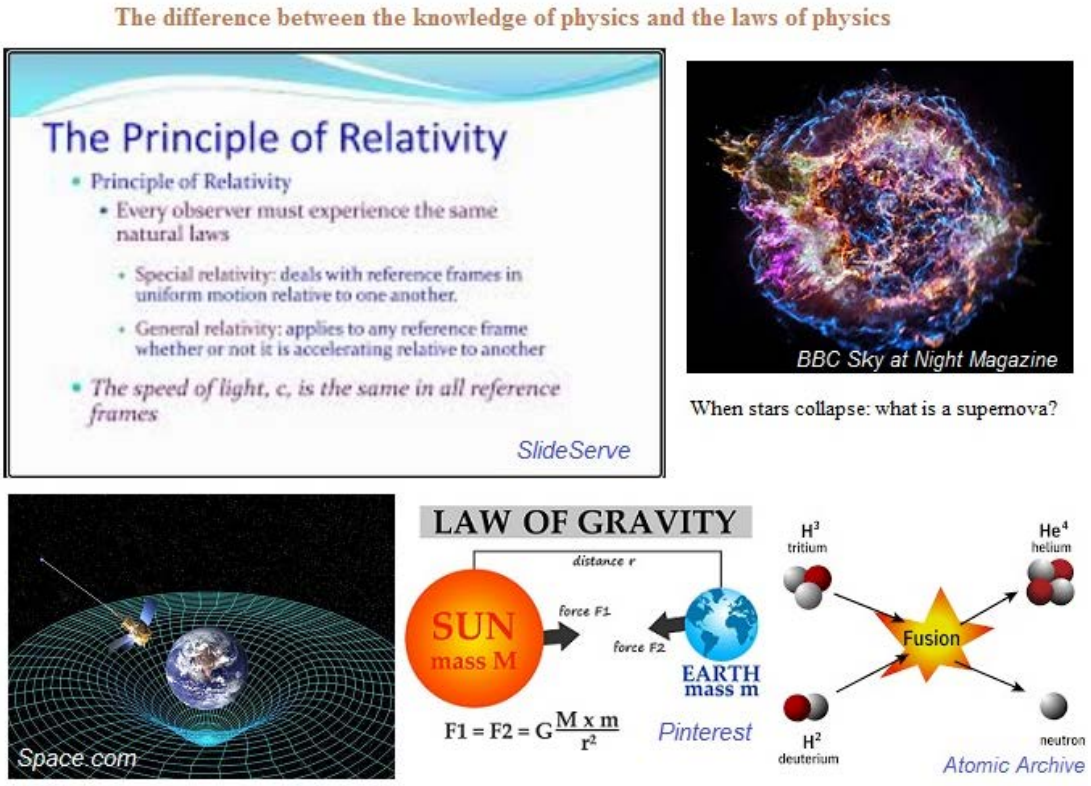
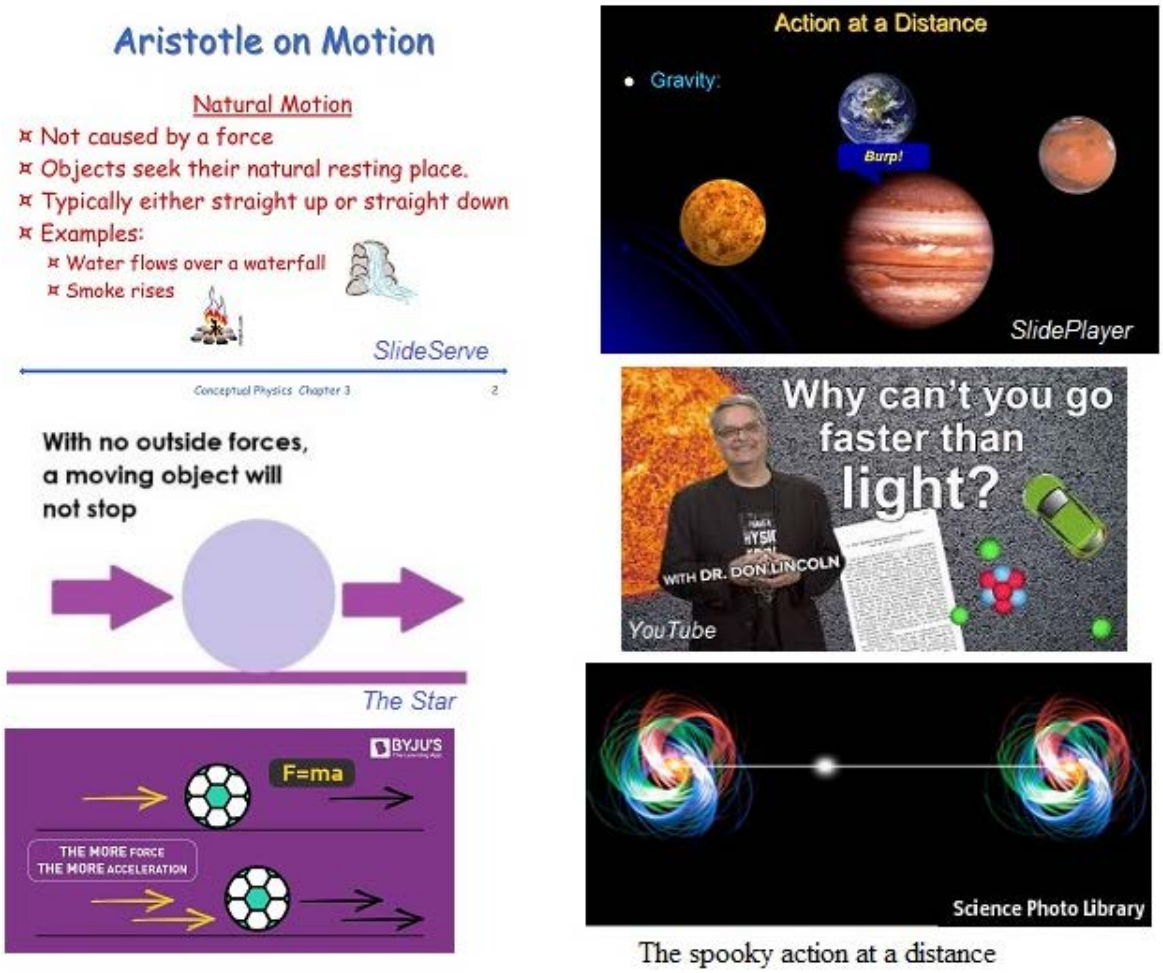


Figure 2

The most important hidden issues in physics

The first feature of matter that man became acquainted with was its motion and change. In Aristotelian physics, the external force was the agent of motion and was exerted by contact. Newton's first law is the law of inertia, which considers the factor of motion as an internal property of matter. The second characteristic of motion is the change in velocity introduced in Newton's

second law. In Newton's laws, including Newton's law of gravity, the action at a distance was accepted, that is, force is applied without contact. In addition, there is no speed limit in Newton's laws. Special relativity limited speed and made action at a distance impossible. With the advent of quantum entanglement, action at a distance once again entered physics, and Einstein called it spooky action at a distance. Thus relativity could not exclude action at a distance. There are two ways about the speed limit, the first way is to ignore quantum entanglement. This way is not scientific, because physics is experimental knowledge and physical principles must be compatible with experience. The second way is to solve the action at a distance in a way that is compatible with relativity. That is, the speed limit should be considered and at the same time, we should not have action at a distance. Figure 3.



The spooky action at a distance

Figure 3

There is no true theory in science

The hidden part of the laws of black holes

The second issue is related to black holes. The most important common feature of all black holes is that light cannot escape from them. According to existing theories, when the fuel of a massive star runs out, the star collapses under the force of gravity and turns into a black hole. Although the center of the black hole is very dense, it does not mean that there is no interaction there. Because cosmic observations show that supermassive black holes have relativistic jets that modern physics cannot explain. Just as there are relativistic jets in supermassive black holes, light is produced by the interaction within the black hole, let us not forget that black holes have entropy. Suppose a photon is produced on the surface of a black hole and moves toward out of the black hole. But he cannot escape it. Because due to the gravitational redshift, it gradually loses energy until its frequency reaches zero, that is, it disappears. But the light production and jets of supermassive black holes are not compatible with general relativity. Because according to general relativity, the center of a black hole is a point of gravitational singularity, the region where the curvature of space-time is infinite. In this case, the volume should reach zero. The fact is that relativity cannot explain the inside of a black hole, neither can quantum mechanics. There is something hidden and unknown here that needs to be explained. Figure 4.

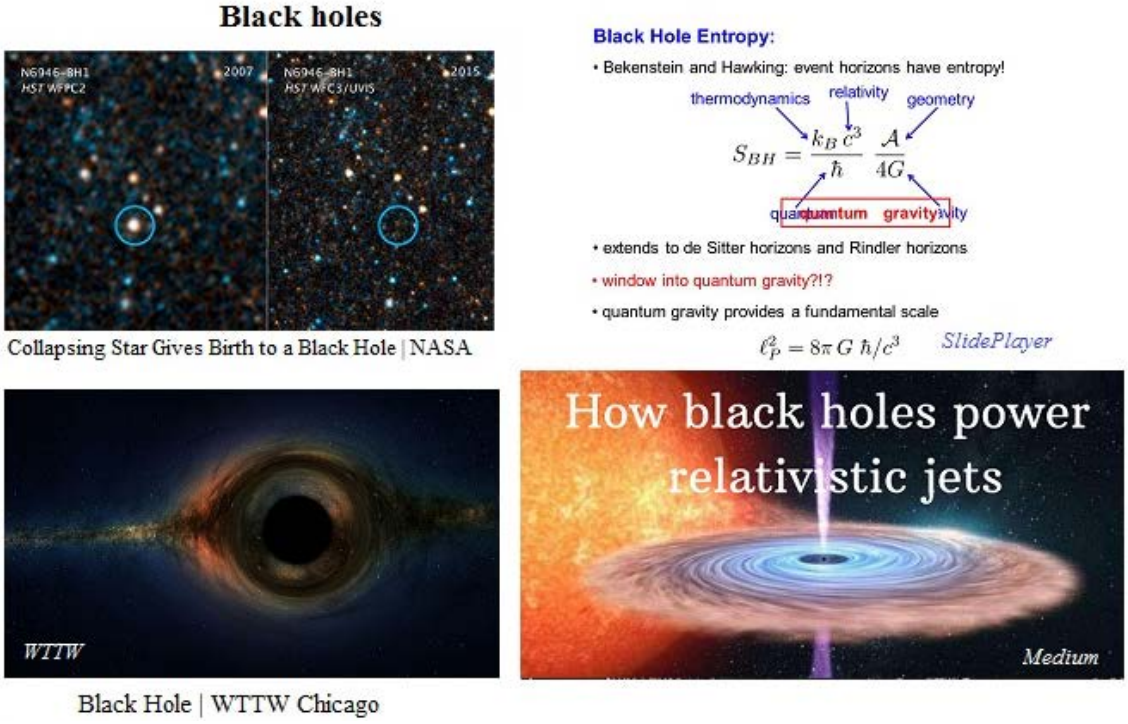


Figure 4

There is no sticking in nature

If we pay attention to Newton's first law and the principle that the speed of light is constant in special relativity, there are two very important points, the first is that motion is an inherent feature

of physical beings, and the second is that speed has a limit. The question is; Is there a limit to deceleration? If the motion is an internal property of objects, does that property disappear under the pressure of gravity? What happens if the gravitational pressure inside the black hole disappears in an instant? What is the conclusion if we examine this thought experiment using general relativity?

Suppose there is a large amount of material in an elevator box, the box is pulled with such great acceleration that suddenly the rope of the box is torn. The pressure exerted on the material by the floor of the box suddenly disappears and the matter is scattered in space. Obviously, if the gravitational pressure inside the black hole disappears in an instant, the black hole will explode. How fast? As fast as gravitational pressure had inhibited it. Figure 5.

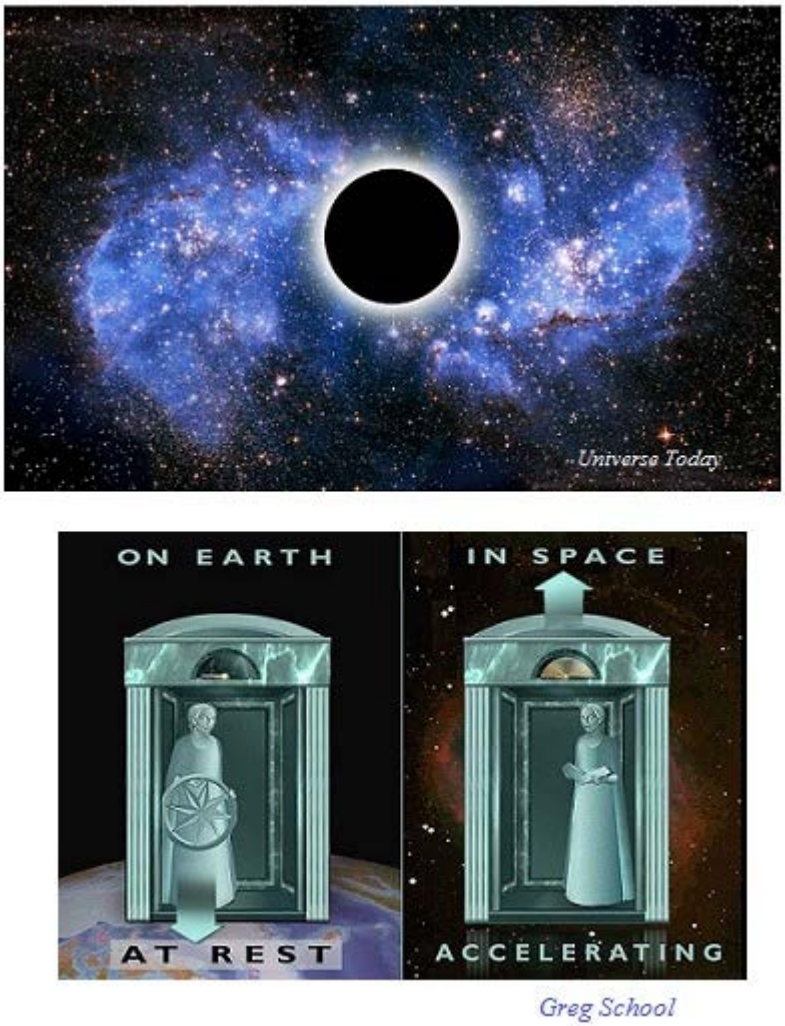


Figure 5

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Suppose that all the particles in the black hole are stuck together under the gravitational pressure, what happens when gravitational pressure disappears? There was a super-dense body that we don't know which way it was going because gravitational pressure was applied to it from all sides. But in reality, we do not expect such a state. This is because the particles do not stick together. The reason for the non-sticking of particles must be sought in the nonlinear motion of the particles that are discussed in CPH theory. In the theory of CPH, the Dirac equation and the gravitational blueshift are revised and the principle of the amount constant speed is obtained. And without violating the special relativity, faster than light speed is explained and the action at a distance is also excluded. The principle of the constant amount of speed enables us to answer many unanswered questions of physics, and many conservation laws are covered in this principle. In addition, the explanation of physical phenomena becomes more intuitive and logical. Figure 6.

Foundation of CPH Theory

$$CPH = \begin{bmatrix} \kappa G^+ & \kappa G^- \\ G_m^+ & G_m^- \end{bmatrix}$$

Positive Sub Quantum Energy: $SQE^+ = \begin{bmatrix} \kappa G^+ \\ G_m^+ \end{bmatrix}$

Negative Sub Quantum Energy: $SQE^- = \begin{bmatrix} \kappa G^- \\ G_m^- \end{bmatrix}$

G^+ is positive color charge.

G^- is negative color-charges

Right rotation color-magnetic G_m^+

Left rotation color-magnetic G_m^-

Positive Sub Quantum Energy; $SQE^+ : \triangleright$

Negative Sub Quantum Energy; $SQE^- : \triangleleft$

Virtual photons

Positive virtual photon; $k \triangleright = \gamma^+$ Negative virtual photon; $k \triangleleft = \gamma^-$

A real photon is formed of a positive virtual photon and a negative virtual photon:

$$\gamma^+ = k \triangleright,\ \gamma^- = k \triangleleft \rightarrow \gamma = \gamma^+ + \gamma^-$$

The Graviton Principle

Graviton is the smallest unit of energy in nature, with a constant mass of m_G in, which always moves at a constant amount of spee $|V_G| > |c|$ in all inertial reference of the frame, so that:

$\nabla V_G = 0$, in all inertial reference frame and any space

Graviton carries two types of linear speed and energy and non-linear speed energy relative to inertial frame, so that:

$$E_G = E_{GT} + E_{GS} = constant$$

$$|V_G| = |V_{GT}| + |V_{GS}| = constant$$

Figure 6