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**Research Article**

# REMODIFYING THE UNIFICATION OF ACTION PRINCIPLE AND ENERGY SYSTEM THEORY CONCEPT

***Lie Chun Pong**

HKUST

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**Abstract**

In this research paper, we aim to explore the concept of action function filtration during the disturbance period "p," leading to a disruption in the flow of time. When an action scalar interacts with a flux, it may result in a crash. The distortion of the energy flux can cause the malfunction of the energy event, ultimately leading to the collapse of the atom world. This leeway will increase significantly when applied to a series of systems that connect in our universe, potentially destroying the spacetime in an exponential manner, while expansion may occur on the other side of the "siri" world.

**Keywords:**Unification of action, Action principle, Energy system, Distortion of the energy flux.

## INTRODUCTION

The evolution of a physical system, or how the system progresses from one state to another, can be expressed in mathematical language using the calculus of variations. This evolution corresponds to a stationary point, often a minimum, of the action. The action has the dimensions of [energy] × [time], and its SI unit is joule-second, which is equal to the unit of angular momentum. In physics, there are several different definitions of "the action" in usual use. The action is usually an integral over time. However, when the action relates to fields, it may also be integrated over spatial variables. On some occasions, the action is integrated along the path followed by the physico-system. The action of a system is usually expressed as an integral over time along the system's path from the initial time to the final time of its development. This integral is represented as:

$$S = \int_{t1}^{t2} L(q(t), \dot{q}(t), t)\, dt$$

the function (L) is Lagrangian. Lagrangian, typically defined as kinetic energy minus potential energy ($L = T - V$) in classical systems.In the action process which integral the trajectory must be bound in both time and space.Where S is represent a system, which refer to S in Action integral, a scalar quantity that encodes the overall "cost" or "effort" of a trajectory.

The action principle can be used to derive equations of motion for the fields such as the electromagnetic and gravitational fields. Maxwell's equations are obtained as conditions of stationary action. The Einstein equation uses the Einstein-Hilbert action constrained by a variational principle. The trajectory of a body in a gravitational field can be initiate using the action principle, with its path being a geodesic for a freely falling body.The implications of symmetries in a physical situation can be understood using the action principle and the Euler-Lagrange equations derived from the action principle. Noether's theorem demonstrates that for every continuous symmetry in a physical situation, there corresponds to a conservation law, and vice versa.

This profound connection necessitates assuming the action principle [1][2]. Euler-Lagrange equations are a set of differential equation obtained using the calculus of variations in Lagrangian mechanics. They represent the requirement that the action integral be stationary under small perturbations.

The Hamilton-Jacobi equation is derived from the action functional by fixing the initial time and the initial endpoint, while allowing the upper time limit and the second endpoint to vary. This equation is a formulation of classical mechanics. It's worth noting that due to its similarities with utilizing the Schrödinger equation, the Hamilton-Jacobi equation offers a direct link with quantum mechanics.

This research paper suggested that the action principle can be further expanded, allowing for non-local actions and different configuration spaces. Where an extra dimension is needed. When the total energy is conserved, the Hamilton-Jacobi equation can be solved by separating variables. This resulting time-i-siri function, called Hamilton's siri characteristic function, helps understand the physical meaning. It indicates that a large energy concentration on specific atoms may lead to a universe collapse and expansion in the 'i" universe world.

In cases of energy distortion, when we adhere to the law of conservation, the distorted action force will be redirected into an equivalent entity within the universe's energy system. As the world is part of the universe, this entanglement will cause forces to collide at a stationary critical point, leading to the collapse of the energy system due to energy consumption flux or energy explosion. In turn, this will create an inverse T-siri stage – {a} specific rotational condition involving minimal friction causing the action force of momentum in acceleration to become a force that fractures and disperses the system. This concept is obeyed to the subject of E=MC^2, where a small amount of mass can be transformed into an enormous amount of energy. Our model is based on this assumption.

If an intense concentration of energy force affects a small amount of matter, could lead to a distortion, any distortion in the universe's energy system could lead to a collapse event.

So our new modify concept model will be as follow:

If,
Energy matter consumption flux/ Energy explosion= (T time)(siri)
When obey a conservative rule,
In apply to system 1,
Then,
P [Energy matter consumption flux/ Energy explosion *1/ (T time)]~=p* [Inverse System]
P*[Energy matter consumption flux/ Energy explosion* ⊥ ]~=p*[Inverse System]
So,
$pj$*[Emcf/Ee*1/⊥] ≅ $pi$ ∗ [∀]

According to the law of energy conservation, if the energy system follows the rule of zero to one sum conservation, then this research paper suggests that distortion in the energy system could potentially lead to a collapse inuniverse's. When an intense(strong) concentration of energy force affects a small amount of matter, this distortion could trigger a collapse event, especially within the universe's energy system. This disruption may cause a tear in time and space in a specific direction, potentially leading to the collapse of the energy system due to the enforcement of the energy conservation law. This collapse could resemble the effects of a black hole, pushing energy apart and causing expansion in extra dimensions in another world system. If an intense(strong) concentration of energy force is strong enough, when it rebounds, it could lead to a distortion, and any distortion in the universe's energy system could lead to a collapse event.

In physics, “action” is a scalar quantity that represents the overall balance between kinetic and potential energies along a trajectory within a physical system. It plays a significant role in classical mechanics, quantum mechanics, and general relativity, especially for systems with small magnitude values, comparable to the Planck constant. The action represents a stationary point of a system's evolution and is defined as the integral of Lagrangian L over time. It is used to derive equations of motion and is particularly useful in cases where Newton's laws are not applicable. The Planck constant is a key factor in quantum mechanics and influences phenomena as action approaches the Planck constant.

The abbreviated action represents the path followed by a physic system without considering its parameterization by time. According to Maupertuis' principle, the actual path of the system is one for which the abbreviated action is stationary. The "action" of a generalized coordinate is determined by integrating a single generalized momentum along a closed path in phase space. This concept is commonly used in perturbation-invariant.

When relativistic effects are significant, the action of a particle with mass (m) travels along a world line C parameterized by proper time. If the particle is parameterized by coordinate time t, then the action becomes the Lagrangian. Physical laws are often expressed as differential equations that describe how physical quantities change over time or space. In classical mechanics, the principle of stationary action is used to derive equations of motion, offering deep insights into physics and modern theoretical concepts. Maupertuis's principle in classical mechanics states that the path taken by a physical system is the one of minimum length, with an appropriate interpretation of path and length. It uses the abbreviated action to link up between two generalized points on a path.Hamilton's principle states that the equations of motion in any physical system can be reformulated while utilizing a transformation, or renormalization. As an equivalent of thechain rule of the integral equationof the timeline. It applies to classical mechanics, classical fields such as electromagnetic and gravitational fields, as well as quantum mechanics and quantum field theory. In the route integral formulation of quantum mechanics, a physical system explores all possible paths, with the probability amplitude for each path determined by the action for that path. In Lagrangian mechanics, the action integral's stationary requirement under small perturbations is equivalent to the Euler-Lagrange equations obtained using the calculus of variations. The Hamilton-Jacobi equation concept of the idea is derived from the action functional by fixing the initial time at a critical point, while allowing other parameters to vary. It provides a direct link to our concept bridging classical and quantum through the quantum connector “siri”.

In classical physics, the action principle serves to derive equations of motion for fields such as electromagnetic and gravitational fields. From this principle, one can obtain Maxwell's equations and Einstein's field equations. Symmetries within a physical context are identified through the action principle and the Euler–Lagrange equations. According to Noether's theorem, each continuous symmetry corresponds to a conservation law. In quantum mechanics, a system's behavior is determined by all possible paths and their actions, rather than just a single stationary path. The path integral method calculates probability amplitudes for various outcomes, exemplified by Richard Feynman's path integral approach. The action principle can be extended to include nonlocal actions and diverse configuration spaces, though experimental validation is required. When total energy is conserved, the Hamilton-Jacobi equation can be separated, allowing its solution via Hamilton's characteristic function, which provides valuable physical insights.

In the above understanding, our research paperindicatethat a large concentration of energy on specific atoms can cause a universe to collapse and expand in the new {i} universe world. In case of energy distortion, applying the law of conservation of energy redirects the action force to a different part of the universe's energy system, will ultimately leading to the collapse of that system. This is similar to E=MC^2, where a small amount of mass can be converted into a substantial amount of energy.

As per our research paper proposes, the law of energy conservation implies that a concentration disruption in the energy system could potentially lead to the collapse of our universe. This disturbance could cause a focus flux event in the atom rebound, resulting in the tearing apart of space and time in a specific direction, similar to a black hole effect, and potentially leading to growth in other dimensions of the system. Our research paper's assumption is supported by the Hamilton-Jacobi equation, which explains how variables can be separated in the conserved total energy E. At a time-independent function W(q1, q2, ..., qN). This is known as Hamilton's characteristic function. Its total time derivative can be interpreted as the siri-abbreviated action. This action is another type of functional alongside the action functional, and the input function is the path followed by the physical system with considering its parameterization by time. Leading the path of a planetary orbit forms an ellipse, as a resultthe path of a particle will move in a uniform gravitational field forms a

parabola of the movement between the both side of parties.The abbreviated action is the integral of the generalized momenta for a system's Lagrangian alongside with a time path in the generalized coordinates. Based on Maupertuis' principle, the system's actual path is the one where the abbreviated action is stationary. When total energy conservation holds, Jacobi's equation can be shifted to Hamilton's characteristic function; in other words, there may be a shift in change. To hedge from one side of the system to the other side of the system.

So, when a high concentration of energy interacts with a small amount of matter, it can cause a distortion that may trigger a collapse event, especially within the universe's energy system. Such disruption might create a tear in space-time in a specific direction, potentially leading to a collapse of the energy system due to the law of energy conservation. This collapse could resemble the effects of a black hole, pushing energy outward and causing expansion into extra dimensions in a different universe. If the energy force is strong enough, its rebound could induce a distortion, at any timeframe of our spacetime. Such a disturbance in the universe's energy system could lead to a particular spacetime collapse. That is a shift in change from our universe to another universe.

In conclusion, in this research paper, we explore the concept of energy function filtration concept during the [p] disturbance period. This particular distortion of the energy flux function could potentially result in the collapse of the atomic world, ultimately leading to the exponential destruction of the spacetime of the universe. This research paper predicted that the collapse of this side universe may lead to the expansion of the other side of the "siri" world 'i' universe. Hope this paper can contribute to the world and citizen.

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