#### Phallacies of Modern Fysics: The Only Way to Unify Physics

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**Extended Abstract**. Phallacies are wrong and outmoded ideas, concepts, hypotheses and theories that have outlived their usefulness but still influence and perhaps even dominate science and theoretical scientific research at any given time. They simply refuse to die or fade away because they have such a strong following within the scientific community. Their existence places artificial and false limits on the scope and direction of advancing science. Phallacies either delay real progress in science or send research down useless and unnecessary cul-de-sacs that at best pose temporary fixes to problems which will never lead to real advances in science. Examples range from Zeno's paradox (which is based on a lie), to the belief that the first scientific revolution occurred in the seventeenth century (it was actually the second revolution) and the Second Scientific Revolution was caused by two fundamental 'crises' (the so-called 'crises' were merely symptoms of far more fundamental underlying issues), but the greatest phallacies in all of 'fysics' have occurred during the last century. Physics and science in general have become so complicated and complex that scientists have come to believe that their theoretical models are reality itself.

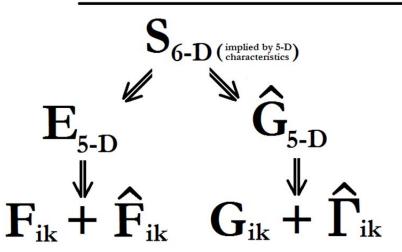
Science must face the truth that the debate between indeterminism and determinism is a misleading and irrelevant phallacy as are wave/particle duality, the purported incompatibility of the quantum and relativity, the concept of point particles, the ability to model phenomena mathematically proves the reality of the model, mathematics is reality, reality must be either discrete or continuous and the simple fact that modern scientists either think or act as if a unification theory must be based on either the quantum or relativity when in fact both theories are equally correct in their descriptions of nature. Quantum theory and relativity are incompatible now because they are both incomplete as they now stand. This means that they are far too limited and not yet general enough to allow the existence of the other theory as is necessary for unification. Yet they should be completely compatible with each other once they are made complete and will thus be equally represented once unified.

The problem now presented by unification can be better illustrated by applying a universal concept or principle of dualities in nature. Space and time form a fundamental duality at one level of reality (Newtonian), but they merge into one common concept at a more fundamental level of reality (the quantum and relativity). That particular merging, which could also be viewed as a synthesis or emergence, was the real cause of the Second Scientific Revolution. These dualities may seem as incompatible at one level as they are inseparable, but at another more fundamental level they come together and can be merged into a single unified concept. In eastern philosophy these dualities are represented by the concepts of yin and yang, while they have evolved in western philosophy as the concepts of thesis and antithesis which are normally solved by a synthesis. Quantum theory and relativity theory form such a duality according to their basic physical characteristics. Relativity is a theory about form (structure) and the quantum represents a theory about function, while the duality of form and function presents one of the most fundamental principles in all of nature.

The quantum and relativity are definitely incompatible at the present modern physics level of their incompleteness, but once the individual theories are rendered complete they should be fully compatible and can be unified into a single scientific worldview. Both of these fundamental theories have proven to be highly successful to extremely high accuracies within their own realms of application and neither seems to be wrong in any sense of the word. This fact indicates that they must be compatible in nature at some as yet undiscovered more fundamental level of reality, which further implies that they can be easily unified once that more fundamental level of reality is reached and understood. However, the present course taken by theorists of unifying physics by 'overthrowing' one theory by the other has yielded nothing of any value to the progress of science. Only when our present modern concepts of relativity and the quantum are recognized for the phallacies of fysics that they are, finding the fundamental level of reality at which they become compatible and can be unified into a single theory is not all that difficult.

# Single Field Theory

Gravity and electromagnetism cannot be unified until they are rendered symmetric with respect to the point and extension geometries of space



symmetric extended-space or metric

particle internal 3-D weak short range weak nucelar force due to points through

contact surface internal electric stress = external spatial strain

anti-symmetric point-space

particle external 3-D strong long range

electromagnetism

symmetric extended-space or metric

particle internal 3-D strong short range strong nuclear force due to contact

between surfaces

anti-symmetric point-space (source of  $\Lambda$ -CDM)

particle external 3-D weak long range

gravity external spatial strain due to surface tension

# manifold

Euclidean flat and/or ∞ void open space & possible multiverse

# single field

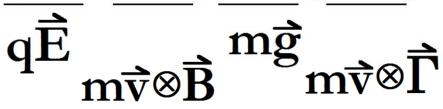
Riemannian single-polar half-spin & entanglement (type 1) quantization along 4th-D of space

### space-time curvature

Riemannian double-polar simple (Machian or EPR) relativity becomes entanglement (type 2)

## quantum curvature

elementary particles nuclei form when particles are stacked in 4th-D of space



Classical Newtonian

modified

### electricity

scalar potential 3-D space central local inverse square law radial direction

#### magnetism

vector potential 4th-D of space central non-local centripetal motion around center

 $\nabla \cdot \vec{\mathbf{B}} = \nabla \cdot (\nabla \otimes \vec{\mathbf{A}}) = 0$ 

#### gravity

scalar potential 3-D space central local central non-local (Mach)

#### gravnetism

vector potential 4th-D of space

centripetal motion (galactic halo) inverse square law radial direction around center

> DM (non-central attraction or centrifugal curvature)

$$\nabla \cdot \vec{\Gamma} = \nabla \cdot (\nabla \otimes \vec{\mathbf{I}}) = 0$$

points - DE (free space) & inertia (inside particle)

$$\nabla \otimes \vec{E} = \nabla \otimes (-\nabla \varphi - \frac{\partial \vec{A}}{\partial t}) = \frac{\partial}{\partial t} (\nabla \otimes \vec{A}) = -\frac{\partial \vec{B}}{\partial t}$$

$$electromagnetism$$

$$\nabla \otimes \vec{g} = \nabla \otimes (-\nabla \gamma - \frac{\partial \vec{I}}{\partial t}) = \frac{\partial}{\partial t} (\nabla \otimes \vec{I}) = -\frac{\partial \vec{\Gamma}}{\partial t}$$

$$electromagnetism$$

$$gravitogravnetism$$