Abstract
In this document I lay down the Axiomatics of Modern Science

1 Axioms For Theoretical Physics
First Law of The Theory of Quantum Relativistic Fields: In an isolated Quantum Relativistic Field the variation of energy goes off as time elapses
\[ dU \to 0 \text{ as } t \to \infty \]
Second Law of The Theory of Quantum Relativistic Fields: In a Quantum Relativistic Field the density of the variation of energy is the sum of densities of the variations of energy of the subfields
\[ \frac{dU}{U} = \sum \frac{dU_i}{U_i} \]

2 Axioms For Mathematical Analysis
The Variational Principle of the Calculus of Variations: For every functional the density of the variation is the sum of densities of the variations in its parameters
\[ \frac{dL}{L} = \sum \frac{dL_i}{L_i} \]

3 Axioms For Mathematical-Logic
Axiom of Algebraic Logic: A logic system is a categorical algebra
Axiom of Categorical Logic: A formal system is a preorder category
Axiom of Thermobiochemical Logic: A thermobiochemical system is a variational logic system

4 Axioms For Theoretical Computation
Cordero-Grau-Church-Turing Axiom of Categorical Computation: In a spacetime universe all the models of computation are equivalent
Cordero-Grau-Cobb-Eddington Axiom of Computability: In a model of computation the tractable functions are the polynomial programs
Cordero-Grau Axiom of Computational Complexity: In a computational complexity the computable programs are the polynomially reducible programs
Cordero-Grau Axiom of Logic Computation: A model of computation is a formal logic system

5 Axiom For Geometric Algebra
Cordero-Grau Axiom of Geometric Algebra: An algebra has a fibered bundle of fibered algorithms

6 Applications
6.1 To Biology, Chemistry and Physics
The Axioms for Theoretical Physics apply to all Biology, Chemistry and Physics, in particular, to Genetics, Evolution and Pharmacology
6.2 To The Theory of Radiation
The Variational Principle of the Calculus of Variations apply to all Physics and Mathematics, especially, to the Theory of Radiation for which assures that chaotic behaviour arises as linear variations of energy between the radiation inwards and the radia-
tion outwards cease giving out the following Principle of the Modern Theory of Radiation
\[ \frac{d\phi}{\phi} = \frac{d\phi_o + dK}{\phi} \]

6.3 To The Theory of Logic, Model Theory and Category Theory

The Axioms of Algebraic Logic, Categorical Logic and Geometric Algebra have important consequences.

The Fundamental Theorem of the Theory of Logic: Every structure has a model.

The Fundamental Theorem of Model Theory: Every model has a larger model.

The Fundamental Theorem of Category Theory: Every category has a dual category.