

A Recap of Principles of Epicurean Physics

Post by “Eikadistes” of March 20, 2022 at 12:44 PM

I find heavy similarities between each of the Twelve Propositions and contemporary scientific laws.

1. “Matter is uncreatable.” (Laws of Conservation of Mass/Energy, Momentum)
2. “Matter is indestructible.” (Laws of Conservation of Mass/Energy, Momentum)
3. “The universe consists of solid bodies and void.” (Atomic Theory; Quantum Field Theory)
4. “Solid bodies are either compounds or simple.” (Atomic Theory; Law of Definite Proportions)
5. “The multitude of atoms is infinite.” (Cosmological Principle)
6. “The void is infinite in extent.” (Hubble’s Law of Cosmic Expansion; Cosmic Inflation) (Cosmological Principle)
7. “The atoms are always in motion.” (Laws of Thermodynamics)
8. “The speed of atomic motion is uniform.” (Maxwell’s Equations; Special Relativity)
9. “Motion is linear in space, vibratory in compounds.” (Newton’s First and Second Laws of Motion)
10. “Atoms are capable of swerving slightly at any point in space or time.” (Uncertainty Principle; Brownian motion)
11. “Atoms are characterized by three qualities, weight, shape and size.” (Standard Model of Physics)
12. “The number of the different shapes is not infinite, merely innumerable.” (Standard Model of Physics)

I might be forcing some mental gymnastics on 5 (infinite matter), and 11 (atoms identified by three variables) which is only *barely* similar to contemporary physics identifying subatomic particles by their *mass, spin, and charge*, but Epicurus' other propositions anticipate modern physics to the point of seeming prophetic.