Grand Unified Theory of Mathematics and Physics and P VS NP Problem

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Abstract

This article discusses the connection between the grand unified theory of mathematics and physics and the P VS NP problem.

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Suppose that a mathematical formula or answer of infinite length can very clearly describe the origin, essence and operating rules of all matter in the universe. Then, we can verify the correctness of this infinite length mathematical formula or answer based on observing all matter in the universe. However, we know that all matter in the universe is constantly moving, changing and developing.[1,2] How can we obtain this infinite length mathematical formula or answer through mathematical operation steps? Mathematics must be able to accurately describe the movement, change and development of all matter in the universe, and mathematics must have the characteristics and functions of the universe. Therefore, the conclusion is as follows: If mathematics and physics can achieve grand unification, P can be equal to NP. If mathematics and physics cannot achieve grand unity, P cannot be equal to NP.

References

1. Khatri, Tilak Bahadur. "Matter, Motion, and Laws of Motion of Matter." Pursuits: A Journal of English Studies 7.1 (2023): 130-140.

2. Pauli, Wolfgang. "Matter." Writings on physics and philosophy. Berlin, Heidelberg: Springer Berlin Heidelberg, 1994. 27-34.