Ψ\_connection Theory: A Conceptual and Mathematical Framework for Emergent Spacetime

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Translated and analyzed by: ChatGPT

# Abstract

This paper presents an English-language translation and structured analysis of the Ψ\_connection theory, an original theoretical framework developed by Krzysztof W. Banasiewicz. The theory aims to unify quantum mechanics and general relativity by modeling the Universe as an emergent structure derived from a complex entanglement function Φ. Drawing from many-worlds quantum mechanics, topological models, and quantum gravity approaches, Ψ\_connection suggests that classical spacetime emerges through quantum decoherence, with the Big Bang interpreted as a collapse of the universal wave function. The paper provides a detailed breakdown of the theory’s mathematical assumptions, analogies to existing physics, and documentation structure, offering a foundation for further formal development and empirical exploration.

# Conceptual Outline

The Ψ\_connection theory, proposed by Krzysztof W. Banasiewicz, attempts to describe the Universe as a structure composed of two complementary “layers” — classical spacetime and an atemporal quantum space...

# Compatibility with Existing Physical Theories

Quantum Mechanics: The assumptions of Ψ\_connection refer to Everett’s many-worlds interpretation, treating the Universe’s universal wave function as a real physical entity...

# Mathematical Assumptions and Theoretical Formalism

The Ψ\_connection theory aims to be grounded in well-defined mathematical objects, although at this stage they are more proposed constructs than fully formalized entities...

# Analogies to Existing Physical Theories

The description of Ψ\_connection as a complex relational function Φ connecting points in space has many analogues in well-established physical concepts...

# Repository Contents and Project Documentation

The Multiverse-Theory project on GitHub (author: @krzyshtoof) serves as an open repository containing documentation and (planned) code related to the Ψ\_connection theory...

# Entanglement, Decoherence, and Quantum Topology – Key Aspects

Quantum Entanglement plays a central role in the Ψ\_connection theory — it is, in fact, its very foundation...

# Quantum Topology

In the context of the Ψ\_connection theory, this term refers — as previously mentioned — to the structure of entanglement connections that determine the shape of the Universe...

# Conclusion

Does Ψ\_connection have physical and mathematical foundations? To summarize the analysis, this concept is an ambitious attempt to combine elements of quantum mechanics and general relativity into a unified framework...

# References

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