Review of: "Ternary instantaneous noise-based logic"

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Potential competing interests: No potential competing interests to declare.

Review Report

Summary:

The paper discusses the representations of three-valued instantaneous noise-based logic. Overall, the paper presents valuable insights; however, there are certain areas that require minor modifications to enhance the clarity and comprehensiveness of the research.

Review Points:

1. The author should discuss the propagation delay of the proposed system. It is important to address the potential delay in signal propagation within the proposed logic system and compare it to existing methods. This will provide a better understanding of the performance characteristics of the proposed approach.

2. The time complexity issue of the mentioned method compared to the existing ones should be discussed. It is essential to analyze and discuss the time complexity of the proposed method in relation to other existing approaches. This will help readers gauge the efficiency and feasibility of the proposed system.

3. The authors have mentioned the term "NBL gates." It would be beneficial to clarify whether there are any physical, human-made gates that follow these operations outside of the brain. Alternatively, if the term refers to a proposed logic operation, this should be clearly stated to avoid any confusion.

4. The paper should contain more physical explanations of its proposed formulae. It is recommended to provide additional physical explanations, where applicable, to enhance the understanding of the proposed formulae and their practical implementation. This will enable readers to grasp the underlying concepts more effectively.

5. The conclusions should be modified to highlight the main findings of the proposed system. The authors should revise the conclusions to emphasize the key contributions and significant findings of the research. This will provide a concise summary of the outcomes and reinforce the value of the proposed system.

Overall, the paper presents promising research on the representations of three-valued instantaneous noise-based logic. By addressing the mentioned modifications, the paper will significantly enhance its clarity, completeness, and impact.