

## Peer Review

# Review of: "Functional Information of a Driven Cellular Automaton"

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The paper is interesting, especially as it explores a simple variation of GoL and focuses on the peculiar results of the system. The research is substantial and can contribute to characterizing emergent CA structures. However, the presentation requires clearer explanations and stronger justifications for its key claims.

**Clarity and Readability:** First, the analysis is sometimes difficult to follow. The heavy use of acronyms disrupts the flow of the text. While the underlying concepts are understandable, the author should prioritize better readability.

**Structural Claims:** Second, the structural claims need more careful justification, particularly the reported power-law correlation between CI and FI. Because both metrics are defined using the same underlying detection counts, it is unclear if this scaling reflects a genuine property of the automaton or merely arises from the shared mathematical dependence in their definitions.

**Alternative Analyses:** It would be helpful if the author clarified whether this scaling persists if CI is defined independently of detection frequency, or if alternative normalizations are used. Furthermore, a clearer analysis exploring other hypotheses, such as an exponential relationship rather than just a power law, should be included. A short discussion addressing whether this introduces a statistical artifact between frequency-based metrics and discovery time would significantly strengthen the argument.

**Conclusion:** Finally, the work presents several interesting measurements but stops short of synthesizing them into a strong concluding claim about what has actually been learned regarding CA construction complexity. As a result, the paper loses some of its initial narrative focus.

## Declarations

**Potential competing interests:** No potential competing interests to declare.