

# Review of: "On the statistical arrow of time"

Charles Auffray

Potential competing interests: No potential competing interests to declare.

In this paper the author supports the view that the arrow of time is not a property of Nature but is subjective, reflecting the level of ignorance of the observer. This resonates with the debate between the statistical physics and quantum physics interpretations. It would be valuable to make explicit reference to these contrasting views and the relevant arguments provided on this topic by key authors and papers. The author may find a way to reconcile these apparently contradictory points of view in the foundational work of Laurent Nottale on scale relativity theory\*, in which he has managed to integrate relativistic and quantum theories of physics, providing a novel interpretation of the arrow of time that might be of interest to discuss in the context of this paper. English editing for typos and grammar is required.

- Laurent Nottale (2011) Scale relativity and fractal space-time. A new approach to unifying relativity and quantum mechanics. Imperial College Press, London.