



UNIVERSITY OF MIAMI
COLLEGE of
ARTS & SCIENCES

Miami Physics Conference 2025

Date: Dec 12-18, 2025
Location: Lago Mar Resort
Affiliation: University of Missouri

Kenny Boyce

Fine-Tuning is Not Evidence for a Multiverse

Abstract

According to the this-universe objection, fine-tuning arguments for a multiverse commit the probabilistic fallacy of inferring a large number of trials from the observation of a single, independently improbable event. A common reply is that the this-universe objection ignores the presence of an observation-selection effect. Analogies are often invoked in which the presence of such an effect renders the observation of an independently improbable event as evidence for the occurrence of multiple trials. I argue that in these cases, the improbability of the observed events themselves is of no evidential importance. Rather, what provides evidence for multiple trials in such cases is the mere fact that the observed trial has occurred. Likewise, I argue, while it may be that the mere existence of our universe provides evidence for a multiverse, the fact that it is fine-tuned does not.