Kolmogorov Complexity is Nonlocal

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Abstract

In the greatest scientific innovation since the works of Newton, Faraday, in 1830, introduced the notion of locality, which states that causation is a local property. Locality inspired both Maxwell and Einstein in their formulations of electromagnetism and relativity. In this paper, we review our recent discovery that classical physics itself is nonlocal. Furthermore if the upper-computable function Kolmogorov complexity was in fact computable, then faster than light communication of some entropy terms is possible.