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Where do the laws of physics come from?

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Since the time of Newton, the laws of physics have generally been regarded as absolute, universal, eternal and immutable. In the era of modern cosmology, early versions of the big bang theory assumed the laws were magically imprinted on the universe at the moment of its origin. Quantum cosmology, however, requires the laws to transcend the physical universe, while eternal inflation cosmology appeals to immutable meta-laws in a multiverse. Some cosmological theories renounce the notion of fixed laws altogether. Thus the status of the laws remains unclear and offers plenty of scope for misunderstanding and confusion. As a result, most physicists and cosmologists shrug aside the question of the source of the laws as lying outside the scope of science. I shall argue that the nature and origin of physical laws is a proper subject for scientific scrutiny and should not be summarily dismissed.

Summary

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