

The Ergodic Theorem: A Probabilistic Formulation

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Abstract

The main aim of this thesis is to present the probabilistic version of Birkhoff's Ergodic Theorem, whose derivation is carried out from the purely measure theoretic version. A crucial point is to present a rigorous treatment of measure theoretic probability theory, by starting with a more general setting. As an application, it is shown that the Strong Law of Large Numbers is derived as a corollary of the theorem.

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