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Kolmogorov Complexity and Probability Measures .

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Abstract: Classes of strings (infinite sequences resp.) with a specific flow of Kolmogorov complexity are introduced. Namely, lower bounds of Kolmogorov complexity are prescribed to strings (initial segments of infinite sequences resp.) of specified lengths. Dependence of probabilities of the classes on lower bounds of Kolmogorov complexity is the main theme of the paper. Conditions are found under which the probabilities of the classes of the strings are close to one. Similarly, conditions are derived under which the probabilities of the classes of the sequences equal one.

It is shown that there are lower bounds of Kolmogorov complexity such that the studied classes of the strings are of probability close to one, classes of the sequences are of probability one, both with respect to almost all probability measures used in practice.

A variant of theorem on infinite oscillations is derived.

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