RANDOM PROCESS PRESENTATION BY NON-CANONICAL DECOMPOSITION

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When solving a problem of statistic dynamics it is necessary to build its selected functions-realizations- by the known probability characteristics of an input random function. This problem is solved by presenting random processes as determinate functions of a set of random variables. Linear canonical decompositions of random functions are most commonly used. They are convenient to use in linear system analysis. It is, however, hardly feasible to use canonical decomposition on basic coordinate functions in order to solve a non-linear problem. This paper deals with a non-linear non-canonical form of presenting random processes proposed in [1].

Stationary random process, correlation theory, method of interpolation polynomials, non-linear non-canonical decomposition.

References

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