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A NOTE ON IMPORTANCE SAMPLING SIMULATION FOR A GERM-GRAIN MODEL

Zbigniew Palmowski

Abstract: In this paper we demonstrate how to use the importance sampling method to simulate rare events in a germ-grain model. We analyze conditions under which two germ-grain models are mutually absolutely continuous. We also find the likelihood set process. We apply these results in simulating the probability that the radius of the occupied component of the origin in continuous percolation is greater than some R. This method is based on the reduction of the variance of estimator.

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