Criticality for Alternating Branching Processes

Penka Mayster, penka.mayster@iretr.rnu.tn

Institute of Mathematics and Informatics, Bulgarian Academy of Sciences,
Acad.G.Bonchev street, Bloc 8, 1113 Sofia, Bulgaria.

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Abstract

This communication describes the correspondence between the models of Alternating branching processes, Controlled branching processes and Branching processes in random environment. The Control process consists of testing every particle from the n-th generation according to dying branching process during an independent random time τ_n. The random environment is generated by the sequence of random variables (δ_n, τ_n), representing the observation and treatment times, respectively, and by the probability generating functions of the Markov branching processes stopped at the random times δ_n or τ_n.

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References

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