

General branching processes conditioned on extinction are still branching processes

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Abstract

It is well known that a simple, supercritical Bienaymé-Galton-Watson process turns into a subcritical such process, if conditioned to die out. We prove that the corresponding holds true for general, multi-type branching, where child-bearing may occur at different ages, life span may depend upon reproduction, and the whole course of events is thus affected by conditioning upon extinction.

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