

On Randomly Bounded Size Families in Branching Processes

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Abstract

We consider the number of families in Bienaymé-Galton-Watson branching processes whose size is within a random interval. We obtain limit theorems for subcritical, critical, and supercritical processes with and without immigration. In the proofs, we make use of a result about the number of observations in a sample with random sample size falling within a random interval.

Keywords: Family size, order statistics, records, branching processes.

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