

Population-dependent branching processes

Fima Klebaner, Fima.Klebaner@sci.monash.edu.au

School of Mathematical Sciences, Building 28, Clayton, 3800 Victoria, Australia

Keywords: near-critical branching process, near-supercritical branching process

AMS: 60J80

Abstract

I shall give a survey of asymptotic behaviour of population-dependent branching processes concentrating on two cases: near-critical and near-supercritical processes. Precise description of these cases will be given in the models of Galton-Watson, Markov and Age-dependent branching processes. Single type as well as multitype processes will be considered.