

MOMENTS OF CONTINUOUS-STATE BRANCHING PROCESSES WITH OR WITHOUT IMMIGRATION

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Abstract: For a positive continuous function f satisfying some standard conditions, we study the f -moments of continuous-state branching processes with or without immigration. The main results give criteria for the existence of the f -moments. The characterization of the processes in terms of stochastic equations given by Dawson and Li (2012) plays an essential role in the proofs.