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Ergodicity of p-majorizing quadratic stochastic operators (Article)

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Abstract

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A scrambling square stochastic matrix plays an important role in the theory of the classical Markov chain. One of the classical results states that a row- stochastic matrix is strongly ergodic if and only if its some power is a scrambling matrix. In this paper, we deal with the similar problem for a cubic stochastic matrix. We introduce a notion of p-majorizing quadratic stochastic operators and study the strong ergodicity of p-majorizing quadratic stochastic operators associated with scrambling, Sarymsakov, and Wolfowitz cubic stochastic matrices.

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