

FROBENIUS–PERRON OPERATOR DESCRIPTION OF MARKOV CHAINS

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Abstract: We consider canonical shift space representation of discrete-time Markov chain given by transition kernels. Markov shifts and eigenfunctions of skew products above them are characterized by terms of Frobenius–Perron operator. The results are applied to the exactness property of Markov chains. We introduce also the notion of quasi-Markov chain and apply it to Gauss endomorphisms.

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