

DEVANEY CHAOS AND ENTROPY OF THE TRIDIAGONAL MARKOV CHAIN

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ABSTRACT

Tridiagonal Markov shifts with m - letters, $m \geq 3$, are defined and it is established here that the topological Markov chain on this Markov shift is Devaney chaotic ($DevC$). Further, discussing various general ideas about topological entropy for continuous maps on compact metric spaces we calculate the topological entropy of the tridiagonal Markov chain by the direct application of Perron-Frobenius theorem.

KEYWORDS: Markov shifts, Topological Markov chain, Topological Transitivity, SDIC, Devaney Chaos, Topological Entropy.

2010 Mathematics Subject Classifications: 37B10, 37D45, 37C15