

**MSC:** 05C25, 05C38, 05C82, 68R10**DOI:** 10.21538/0134-4889-2022-28-2-274-296**THE GIRTHS OF THE CUBIC PANCAKE GRAPHS****Elena V. Konstantinova, Son En Gun**

The pancake graphs  $P_n$ ,  $n \geq 2$ , are Cayley graphs over the symmetric group  $\text{Sym}_n$  generated by prefix reversals. There are six generating sets of prefix-reversals of cardinality three which give connected Cayley graphs over the symmetric group known as cubic pancake graphs. In this paper we study the girth of the cubic pancake graphs. It is proved that considered cubic pancake graphs have the girths at most twelve.

Keywords: pancake graph, cubic pancake graph, prefix-reversal, girth.

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