

Mignosi, Filippo; Séébold, Patrice

Sturmian morphisms and Rauzy's rules. (Morphismes sturmiens et règles de Rauzy.) (French)

Zbl 0797.11029

J. Théor. Nombres Bordx. 5, No. 2, 221-233 (1993).

An infinite word x over a binary alphabet A is called Sturmian if it has exactly $n + 1$ distinct factors of length n for every $n \in \mathbb{N}$. A morphism of the free monoid of all the words over A is called Sturmian if it preserves Sturmian words over A . The authors, extending an earlier sufficient condition by *Márton Kósa* [Problems and solutions sections of EATCS Bull. 32, 331-333 (1987)], give a criterion for Sturmian morphisms in terms of three special morphisms introduced by Kósa. The final two sections of the paper are devoted to morphisms, the definition of which is motivated by a construction due to *G. Rauzy* [Lect. Notes Comput. Sci. 192, 165-171 (1983; Zbl 0613.10044)] and to the proof that infinite words generated by these morphisms are rigid.

Reviewer: Š.Porubský (Bratislava)

MSC:

11B85 Automata sequences
20M05 Free semigroups, generators and relations, word problems
68R15 Combinatorics on words

Cited in **5** Reviews
Cited in **45** Documents

Keywords:

infinite binary word; Sturmian words; Sturmian morphisms

Full Text: [DOI](#) [Numdam](#) [EuDML](#)

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