

**Blanchard, F.; Hansel, G.**

**Languages and subshifts.** (English) [Zbl 0571.68059](#)

Automata on infinite words, Ec. Printemps Inf. Théor., Le Mont Dore 1984, Lect. Notes Comput. Sci. 192, 138-146 (1985).

[For the entire collection see [Zbl 0563.00019](#).]

Let  $A$  be a finite alphabet,  $A^*$  the free monoid over  $A$ . To every language  $L \subset A^*$ , one can associate in a canonical way a subshift  $S_L \subset A^{\mathbb{Z}}$ . For instance the subshifts associated to rational languages are the so-called "sofic" subshifts. More generally if  $L = X^*$  where  $X$  is a prefix code, then  $S_L$  is called a "coded" subshift. In this paper we present essential properties of sofic and coded subshifts. A special emphasis is put on the use of the syntactic properties of languages to deduce "ergodic" properties of the associated subshifts.

**MSC:**

[68Q45](#) Formal languages and automata

Cited in **1** Review  
Cited in **9** Documents

**Keywords:**

[free monoid](#); [prefix code](#); [syntactic properties of languages](#)