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Subword Languages of Infinite Partial Words.

Let A be a finite alphabet; an infinite full word is a sequence over A . A partial word is a word that may contain wildcard characters, which match any letter in A . A subword of an infinite word w is a finite full word that matches a substring of w . The set of all subwords of w is the subword language of w . In this paper we give necessary and sufficient conditions for a language over A to be the subword language of an infinite word. In this case, we also construct a representing word for A , and show that in some cases the representation is unique. (Received September 22, 2011)