Recent Progress in Combinatorics on Words March 12-16, 2007

Synchronization delay

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Abstract

We present a survey on codes with finite synchronization delay. This notion, intoduced by Gilbert and Moore, is the object of a series of combinatorial results by Schtzenberger (link with the theory of varieties), Eastman and Scholtz (comma-free codes), Restivo (link with circular codes and locally testable languages), Bruyre (completion) and others. It has also connexions with symbolic dynamics through the notion of a local automaton and Krieger's embedding theorem. We present some new and simplified proofs of some of these results.