Wojciech Rytter

The Structure of Graphs Representing All Subwords of Thue-Morse Sequences

The directed acyclic subword graphs are a useful tool as data structures representing succinctly all subwords of a given word. For certain families of words (Fibonacci, Sturmian, Thue-Morse) the compacted versions of these graphs are of logarithmic size with respect to the size of the input word and have very regular structure. These compacted graphs are of independent interest as combinatorial objects. We discuss several structural properties of the graphs related to finite and infinite Thue-Morse sequences.