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Applying automata algorithms to decide properties of graphs

A strong tradition exists of using finite state automata to give finite descriptions of infinite structures. A more recent perspective explores the use of automata as succinct representations of finite objects. In either case, a wide class of queries about objects represented via automata can be decided efficiently. In particular, we will present work on graph questions, including connectivity, and discuss the isomorphism problem.

This is joint work with Khossainov and Liu, and with Liu.