
LADISLAV STACHO, Simon Fraser University

Efficient Periodic Graph Traversal on Graphs with a Given Rotation System

We review problem of *periodic-graph-traversal*, which is to design an agent A and port-labeling-scheme L such that A (using L) performs on any undirected graph an infinite walk that periodically visits all vertices. The goal is to minimize revisit-time of any vertex over all graphs on n vertices. It is an open problem to show that when L is limited to a permutation at every vertex, this time is at most $2n - 2$.

In this talk, we sketch a proof of an affirmative answer to the problem under the assumption that the input graph is given with a rotation system.