
DAVID PIKE, Memorial University of Newfoundland

Brushing without capacity restrictions

We consider a variant of the problem of cleaning a graph with brushes, whereby one vertex is cleaned at a time and there is no restriction on the number of brushes that are permitted to traverse an uncleaned edge. Given a graph G , the main question of interest is to determine its brushing number $B(G)$, i.e., the minimum number of brushes that enable the graph to be cleaned. We obtain results for trees and Cartesian products, as well as general upper and lower bounds on the brushing number. This is joint work with Darryn Bryant, Nevena Francetić, Przemysław Gordinowicz and Paweł Prałat.