

On Partition Dimension of Infinite Graphs

Muhammad Imran, United Arab Emirates University

Partition dimension is a well known parameter in metric graph theory and is generalization of the metric dimension. The problem of finding the partition dimension is NP-complete. Little is known about the partition dimension of infinite graphs. Tomescu studied graphs where the set of vertices is the set of points of the integer lattice. We generalise these graphs and present several exact values, lower bounds and upper bounds on the partition dimension of infinite graphs.

Keywords: Partition dimension, infinite graph, distance.