
JARED HOWELL, Memorial University - Grenfell Campus

The Watchman's Walk on Block Intersection Graphs of Steiner Triple Systems

A watchman's walk, in a graph G , is a minimum closed dominating walk of G . The block intersection graph of a Steiner triple system, S , has vertices labelled by the blocks of S and an edge between two vertices if and only if corresponding blocks have a point in common. The structure of these block intersection graphs allows us to find bounds on the watchman's walk for such graphs and give constructions to achieve these bounds.