The disc structures of commuting involution graphs for certain simple groups.

ABSTRACT

Suppose is a finite group and is a subset of. The commuting graph on the set , whose vertex set with any two vertices connected by an edge if and only if they commute. In this paper, we consider as the Mathieu groups, symplectic groups, together with their automorphism groups and are conjugacy classes of involutions. Let. Here we investigate the orbits under the action of from a fixed vertex and describe the group theoretic structure of where is a-orbit representative. safety and healthy sound school environment for teacher to work and for students to learn.