

Constructing Clifford Graph Algebras for Caterpillar Trees

Courteney Charles*, Timothy Myers, Howard University

William Clifford was an English mathematician who developed Clifford algebras, a useful tool for studying graphs, applications in physics, computer science, and more. Each of n generators in a Clifford graph algebra is associated with a vertex of a simple graph. Two generators will commute if there is no edge between their associated vertices. Vertices that share an edge have a special property that causes their generators to anti-commute. The primary objective of this talk is to construct the Clifford graph algebra for caterpillar trees. Applications will be discussed.

Keywords : Clifford algebra