
IRESHA MADDUWE, Dalhousie University

Reconstruction Conjecture on Homological Invariants of Cameron-Walker Graphs

We show that key homological invariants of edge ideals of Cameron Walker graphs, such as regularity, and depth can be reconstructed from its vertex deleted subgraphs. In addition, we discuss the reconstruction of the top-degree Betti numbers of these edge ideals. Furthermore, we speak on the reconstruction of the lattice points of the edge ideals of Cameron Walker graphs such as $(\text{reg}(R/I), \deg h(R/I))$ and $(\text{depth}(R/I), \dim(R/I))$ using the lattice points of their vertex-deleted subgraphs.