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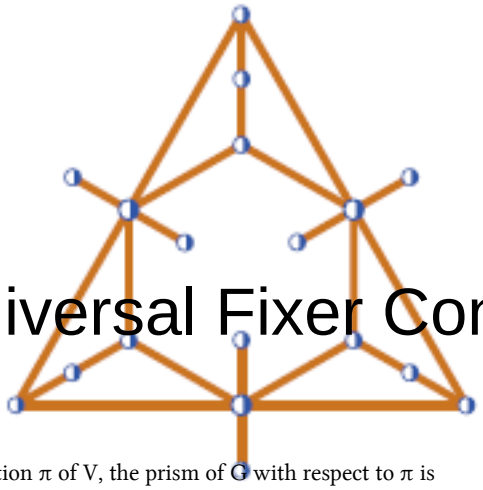
The Universal Fixer Conjecture



Content :

For a graph G=(V,E) and a permutation π of V, the prism of G with respect to π is the graph πG obtained from two copies G′ and G" of G by joining u∈V′ and v∈V" if and only if v=π(u). If π is the identity, then $\pi G = G \times K_2$, the cartesian product of G and K_2. The graph $G \times K_2$ is often referred to as the prism of G and πG is called a generalized prism of G.
A universal fixer is a graph whose domination number is equal to that of all its generalized prisms. The edgeless graphs are universal fixers. No other universal fixers have been discovered, and it has been conjectured that if G has an edge, then G is not a universal fixer. This conjecture, known as the "Universal fixer conjecture", is known to be true for (amongst others) claw-free graphs, bipartite graphs, regular graph and graphs with domination number at most 3. I shall survey known results on this conjecture and the methods used to obtain them.

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