ON THE CROSSING NUMBERS OF SPECIAL GRAPH PRODUCTS

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The crossing number of a graph $G$ is denoted by $cr(G)$ and is defined to be the least number of edge crossings in any drawing of $G$ in the plane. The general problem of determining this invariant is NP-hard even for cubic graphs. The exact values of crossing numbers are known only for some families of graphs. According to their special structure, Cartesian products of special graphs are one of few graph classes for which exact values of crossing numbers were obtained. Recently, some authors started to study the crossing numbers for join products of graphs.

In the talk, we summarise new results concerning crossing numbers of Cartesian products and join product of graphs. These results we extend by giving the exact values of crossing numbers of products of some special graphs.

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