
Summary: A topological index, also known as connectivity index, is a molecular structure descriptor calculated from a molecular graph of a chemical compound which characterizes its topology. Various topological indices are categorized based on their degree, distance, and spectrum. In this study, we calculated and analyzed the degree-based topological indices such as first general Zagreb index \( M_r(G) \), geometric arithmetic index \( GA(G) \), harmonic index \( H(G) \), general version of harmonic index \( H_r(G) \), sum connectivity index \( \lambda(G) \), general sum connectivity index \( \lambda_r(G) \), forgotten topological index \( F(G) \), and many more for the Robertson apex graph. Additionally, we calculated the newly developed topological indices such as the \( AG_2(G) \) and Sanskruti index for the Robertson apex graph \( G \).

MSC:

05-XX Combinatorics
81-XX Quantum theory

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References:


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