

A_α -SPECTRA OF DUPLICATION CORONAS

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Abstract: The convex combination of diagonal matrix $D(G)$ and adjacency matrix $A(G)$ defined as $A_\alpha(G) = \alpha D(G) + (1 - \alpha)A(G)$ for $\alpha \in [0, 1]$ is indeed a good choice to merge A -spectra and Q -spectra theories of graphs. In this work, we discuss A_α -eigenvalues of duplication corona, duplication edge corona, duplication neighbourhood corona and vertex complemented corona. Motivated by these operations, we have defined duplication vertex complemented corona operation and obtained corresponding A_α -eigenvalues. We have also suggested some infinite family of graphs based on these findings.

Keywords and Phrases: A_α -spectra, duplication edge corona, duplication neighbourhood corona, vertex complemented corona, duplication vertex complemented corona.

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