

On the modified Schultz index of graphs with three cycles

Paula Carvalho¹ and Paula Rama¹

¹*Departamento de Matemática - CIDMA, Universidade de Aveiro, Portugal*
paula.carvalho@ua.pt, prama@ua.pt

The modified Schultz index, also known as the Gutman index, is defined as $S^*(G) = \sum_{\{u,v\} \subset V(G)} d_G(u)d_G(v)dist_G(u,v)$. In this talk we present some properties of the modified Schultz index of tricyclic graphs with three cycles, that is, connected graphs with exactly three cycles. We also determine the modified Schultz index of several graph products and of the subdivision graph and we show some connections with other topological indices (Wiener index, Schultz index, 1st and 2nd Zagreb indices).