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A SPECTRAL CHARACTERIZATION OF THE s-CLIQUE EXTENSION OF THE TRIANGULAR GRAPHS

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This paper is dedicated to the memory of Prof. Slobodan Simić.

Abstract

A regular graph is co-edge regular if there exists a constant μ such that any two distinct and non-adjacent vertices have exactly μ common neighbors. In this paper, we show that for integers $s \geq 2$ and n large enough, any co-edge-regular graph which is cospectral with the s-clique extension of the triangular graph $T(n)$ is exactly the s-clique extension of the triangular graph $T(n)$.

Keywords: co-edge-regular graph, s-clique extension, triangular graph.

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