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Connected Graphs with Minimum Skew Rank Equal to Four.

The minimum skew rank of a simple graph G over the field of real numbers is the smallest possible rank among all real skew-symmetric matrices whose (i, j) -entry (for $i \neq j$) is nonzero whenever $\{i, j\}$ is an edge in G and is zero otherwise.

In this presentation we classify those connected acyclic or unicyclic graph that have minimum skew rank equal to four.

We also study more general graphs with the same property. (Received February 09, 2010)