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Lauren Keough*, s-lkeough1@math.unl.edu, and **A.J. Radcliffe**. *Graphs with the Fewest Matchings*. Preliminary report.

We are interested in the problem of which graphs on n vertices and e edges have the minimum number of matchings. A graph with the fewest matchings can be found among the threshold graphs. In the bipartite graph case we find that the lex bipartite graph attains the minimum number of matchings of every size. We use this to show that either the lex or the colex graph attains the minimum number of matchings in the general graph case. (Received February 18, 2013)