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Rao Li* (raol@usca.edu), 471 University Parkway, Dept. of mathematical sciences, Aiken, SC 29801. *Some Lower Bounds on the Independence Number of a Graph*. Preliminary report.

The independence number of a graph is the size of a largest independent set of in the graph. Using the inequalities established by Chung (JGT 12 (1988)229-235) and Sivasubramanian (Dis. Math. 309(2009) 3458-3462), we obtained some lower bounds, which involve the largest Laplacian eigenvalue, the number of spanning trees, or the maximum degree, on the independence number of a graph. The lower bounds for the independence number of a graph will be presented in this talk. (Received January 16, 2011)