1117-05-164 Shaohui Wang* (swang4@go.olemiss.edu), 115 Northgate Dr PMB2033, University, MS 38677, and Bing Wei. The ratio of independent domination number and domination number in bipartite graphs. Preliminary report.

Let $\gamma(G)$ and i(G) be the domination number and the independent domination number of G, respectively. Hedetniemi and Mitchell proved that $i(G)/\gamma(G) = 1$ if G is a line graph of a tree in 1977. Rad and Volkmann posted a conjecture that $i(G)/\gamma(G) \leq \Delta(G)/2$ for any graph G, where $\Delta(G)$ is its maximum degree. Furuta et al. gave the counterexamples containing an induced clique and disproved the conjecture. In this note, we verify the conjecture for bipartite graphs. Several graph classes attaining the extremal bound and graphs containing odd cycles with the ratio larger than $\Delta(G)/2$ are provided as well. (Received January 12, 2016)