Csaba Biro* (csaba.biro@louisville.edu). Clique number of graphs with high chromatic number.

We study graphs whose chromatic number is close to the order of the graph. Both when the chromatic number is a constant multiple of the order and when the difference of the chromatic number and the order is a small fixed number, large cliques are forced. We study the latter situation, pose a conjecture about the forced size of the largest clique, and prove it for some special cases. (Received January 25, 2011)