

Meeting: 999, Nashville, Tennessee, SS 14A, Special Session on Graph Theory and Matroid Theory

999-05-102 **Xuechao xl Li*** (xcli@uga.edu). *Edge coloring of graphs with small maximum degrees.* Preliminary report.

By applying discharging method, we give new lower bounds for the size of edge chromatic critical graphs for small maximum degrees. Furthermore, it is also proved that if G is a graph embeddable in a surface S with characteristics $c_S = -4$ or -5 or -6 , then G is *class one* if maximum degree $\Delta \geq 10$ or 11 or 12 respectively. (Received August 24, 2004)