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Guantao Chen* (gchen@gsu.edu), Department of Mathematics and Statistics, Georgia State University, Atlanta, GA 30303. *Cycles in critical edge coloring graphs with large maximum degrees*. Preliminary report.

Vizing conjectured that every k -critical edge coloring graphs with $k \geq 3$ contains a 2-factor. By imposing some conditions on the lower bound of maximum degree, we verify the conjecture. Moreover, we show that such graphs have a hamiltonian cycles. These are joint work with Xiaodong Chen, Songling Shan, and Yue Zhao, respectively. (Received September 19, 2016)