A. V. Kostochka, Xiangwen Li, W. Ruksasakchai, M. Santana, Tao Wang and Gexin Yu*, Department of Mathematics, College of William and Mary, Williamsburg, VA 23188. Strong Chromatic Index of Subcubic Planar Multigraphs. Preliminary report.

The strong chromatic index of a multigraph is the minimum k such that the edge set can be k-colored requiring that each color class induces a matching. We verify a conjecture due to Faudree, Gyárfás, Schelp, and Tuza, showing that every planar multigraph with maximum degree at most three has strong chromatic index at most 9. (Received July 28, 2014)