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Sogol Jahanbekam* (sogol.jahanbekam@sjsu.edu), San Jose State University, San Jose, CA 95192, and **Katerina Potika**. *Improved algorithm to determine 3-colorability of graphs with minimum degree at least 8.*

Let G be an n -vertex graph with maximum degree Δ and minimum degree δ with $\delta \geq 8$. We give an algorithm with complexity $O(1.3158^{n-0.7 \Delta(G)})$ that determines if G is 3-colorable. (Received August 31, 2019)