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Gexin Yu* (gyu@wm.edu), Department of Mathematics, College of William and Mary, Williamsburg, VA 23185. *A proof of Reed's conjecture on path cover number of 3-regular Graphs*. Preliminary report.

A path cover of a graph is a set of disjoint paths so that every vertex in the graph is contained in one of the paths. The path cover number $p(G)$ of graph G is the cardinality of a path cover with minimum number of paths. Reed conjectured that a 2-connected 3-regular graph has path cover number at most $\lceil n/10 \rceil$. In this paper, we confirm this conjecture. (Received September 23, 2014)