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Suil O* (so@wm.edu), 407 Stratford Rd, D, Williamsburg, VA 23185, and **Gexin Yu**. *Path Cover Number in 4-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* of graph G , denoted $p(G)$, is the minimum size of such a cover. We prove that if G is a 4-regular graph with n vertices, then $p(G) \leq \lceil \frac{n}{8} \rceil$. This result also confirms a Graffiti.pc Conjecture for 4-regular graphs. (Received January 31, 2012)