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**Cun-Quan Zhang\*** (cqzhang@math.wvu.edu), Department of Mathematics, WVU, Morgantown, WV 26506-6310. *Strong embedding of semi-Petersen-minor free graph*. Preliminary report.

Let  $P_{10}$  be the Petersen graph, and  $P_{10}^-$  be the graph obtained from  $P_{10}$  by contracting one edge. It is proved by Alspach and Zhang that every bridgeless cubic  $P_{10}$ -minor free graph has a strong embedding on some surface. For bridgeless graphs without the regularity requirement, it was proved by Zhang that every  $K_5$ -minor free graph has a strong embedding on some surface. In this paper, this result is generalized for graph without  $P_{10}^-$ -minor. (Received August 01, 2011)