

1126-05-132

Yezhou Wu, Zhejiang University, Hangzhou, Zhejiang 310027, Peoples Rep of China, **Dong Ye*** (dong.ye@mtsu.edu), Department of Mathematical Sciences, Middle Tennessee State University, Murfreesboro, TN 37132, and **Cun-Quan Zhang**, Department of Mathematics, West Virginia University, Morgantown, WV 26506. *Hamilton 2-factor and K_5 -minor free graphs*. Preliminary report.

A graph G is 2-factor Hamiltonian if every 2-factor of G is a hamiltonian cycle. Abreu, Aldred, Funk, Jackson, Labbate and Sheehan conjecture that a 4-regular simple graph G is 2-factor hamiltonian if and only if G is isomorphic to K_5 . In this paper, we show that a 2-factor Hamiltonian 4-regular graph must contain K_5 as a minor. (Received January 09, 2017)