1125-05-300 **Miaomiao Han**, **Xinmin Hou**, **Hong-Jian Lai** and **Jiaao Li*** (joli@mix.wvu.edu), Department of Mathematics, West Virginia University, Morgantown, WV 26506-6310. *A Ramsey-Type theorem on Modulo Orientations.*

A mod $(2p+1)$-orientation D is an orientation of G such that $d_D^+(v) - d_D^-(v) \equiv 0 \pmod{2p+1}$ for any vertex $v \in V(G)$. Jaeger conjectured that every $4p$-edge-connected graph has a mod $(2p+1)$-orientation. For $p = 1$, it is the Tutte's 3-Flow Conjecture. The $p = 2$ case, if true, would imply Tutte's 5-Flow Conjecture. The Ramsey theorem states that, when $|V(G)|$ is sufficient large, either G or its complement G^c contains a complete graph K_n as a subgraph. We show a Ramsey-Type theorem on modulo orientations that if G is a graph with $|V(G)| \geq N(p) = 1152p^4$ and $\min\{\delta(G), \delta(G^c)\} \geq 4p$, then either G or G^c has a mod $(2p+1)$-orientation. (Received August 24, 2016)