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Jian Cheng*, 320 Armstrong Hall, P.O. Box 6310, Morgantown, WV 26506. *Integer Flows in Signed Graphs with No Odd- K_4 -minors.*

Bouchet conjectured that every signed graph admitting a nowhere-zero integer flow will admit a nowhere-zero 6-flow. He verified the conjecture is true when 6 is replaced by 216. Zýak improved this result to 30. Xu and Zhang showed that it is true for 6-edge-connected graphs. For 4-edge-connected graphs, Raspaud and Zhu proved the existence of nowhere-zero 4-flows. An odd- H is a signed graph H with no positive edges. Our main result is that for any 3-connected signed graph G which admits a nowhere-zero integer flow, if G has no odd- K_4 -minors, then G admits a nowhere-zero 8-flow. This is joint work with Y. Lu, R. Luo and C.-Q. Zhang from West Virginia University. (Received September 14, 2015)