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Yuping Gao* (gaoy@1zu.edu.cn) and **Songling Shan** (sshan12@ilstu.edu). *Antimagic orientation of lobsters*. Preliminary report.

Let $m \geq 1$ be an integer and G be a graph with m edges. We say that G has an antimagic orientation if G has an orientation D and a bijection $\tau : A(D) \rightarrow \{1, 2, \dots, m\}$ such that no two vertices in D have the same vertex-sum under τ , where the vertex-sum of a vertex u in D under τ is the sum of labels of all arcs entering u minus the sum of labels of all arcs leaving u . Hefetz, Mütze and Schwartz [J. Graph Theory, 64: 219-232, 2010] conjectured that every connected graph admits an antimagic orientation. The conjecture was confirmed for certain classes of graphs such as dense graphs, regular graphs, and trees including caterpillars and complete k -ary trees. In this talk, we discuss the antimagic orientation of lobsters. This work is joint with Songling Shan. (Received December 30, 2020)