

Every line graph of a 4-edge-connected graph is \mathbf{Z}_3 -connected

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Abstract

In [Discrete Math. 230 (2001), 133-141], it is shown that Tutte's 3-flow conjecture that every 4-edge-connected graph has a nowhere zero 3-flow is equivalent to that every 4-edge-connected line graph has a nowhere zero 3-flow. We prove that every line graph of a 4-edge-connected graph is \mathbf{Z}_3 -connected. In particular, every line graph of a 4-edge-connected graph has a nowhere zero 3-flow.