

Relaxation of local connectivity for hamiltonian claw-free graphs

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Abstract

Oberly and Sumner proved a well known result that every connected, locally connected claw-free graph is hamiltonian. Improvement and generalization of this result have been done by the work of R. Shi, L. Clark, C. Q. Zhang, Z. Ryjáček and M. Li, among others. In this talk, we will present a brief survey on research along this direction. We will also present some of the latest results concerning a conjecture by Li that every 3-connected, N^2 -locally connected claw-free graph is hamiltonian, and on an attempt to relax the local connectivity condition to triangularly connectivity.