

# On 1-Hamilton-connected claw-free graphs

Petr Vrána

(joint work with Tomáš Kaiser and Zdeněk Ryjáček)

A graph  $G$  is  $k$ -Hamilton-connected ( $k$ -hamiltonian) if  $G - X$  is Hamilton-connected (hamiltonian) for every set  $X \subset V(G)$  with  $|X| = k$ . We prove that every 5-connected line graph with minimum degree at least 6 is 1-Hamilton-connected and we use a closure preserving 1-Hamilton-connectedness [1] to extend the result to claw-free graphs. As a byproduct, we also show that every 5-connected line graph with minimum degree at least 6 is 3-hamiltonian.

## REFERENCES

- [1] Z. Ryjáček, P. Vrána: A closure for 1-Hamilton-connectedness in claw-free graphs, J. Graph Theory, to appear.