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Cayley graphs on nilpotent groups with cyclic commutator subgroup are hamiltonian

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Abstract

We show that if G is any nilpotent, finite group, and the commutator subgroup of G is cyclic, then every connected Cayley graph on G has a hamiltonian cycle.

Keywords

Cayley graph; hamiltonian cycle; nilpotent group; commutator subgroup

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Cayleyevi grafi nilpotentnih grup s ciklično komutatorsko podgrupo so hamiltonski

Povzetek

Pokažemo, da če je G poljubna nilpotentna končna grupa, in če je komutatorska podgrupa grupe G ciklična, potem ima vsak povezan Cayleyev graf grupe G hamiltonski cikel.

Ključne besede

Cayleyev graf; hamiltonski cikel; nilpotentna grupa; komutatorska podgrupa