

Classification of some reflexible edge-transitive embeddings of complete bipartite graphs

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Abstract

In this paper, we classify some reflexible edge-transitive orientable embeddings of complete bipartite graphs. As a by-product, we classify groups Γ such that (i) $\Gamma = XY$ for some cyclic groups $X = \langle x \rangle$ and $Y = \langle y \rangle$ with $X \cap Y = \{1_\Gamma\}$ and (ii) there exists an automorphism of Γ which sends x and y to x^{-1} and y^{-1} , respectively.

Keywords: Complete bipartite graphs, reflexible edge-transitive embedding.

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Klasifikacija nekaterih reflektivnih povezavno-tranzitivnih vložitev polnih dvodelnih grafov

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Povzetek

V tem članku klasificiramo nekatere reflektivne povezavno-tranzitivne orientabilne vložitve polnih dvodelnih grafov. Poleg tega klasificiramo grupe Γ , za katere velja (i) $\Gamma = XY$ za ciklični grupi $X = \langle x \rangle$ in $Y = \langle y \rangle$, ki zadoščata pogoju $X \cap Y = \{1_\Gamma\}$ in (ii) obstaja avtomorfizem grupe Γ , ki preslika x in y v x^{-1} in y^{-1} , v tem vrstnem redu.

Ključne besede: Polni dvodelni grafi, reflektivna povezavno-tranzitivna vložitev.

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