

# Star-critical Gallai-Ramsey numbers involving the disjoint union of triangles

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Received 22 February 2022, accepted 6 October 2022, published online 15 November 2022

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## Abstract

In the Ramsey theory of graphs, star-critical Gallai-Ramsey numbers serve as a measure of the strength of their corresponding Gallai-Ramsey numbers. In this paper, we evaluate some classes of star-critical Gallai-Ramsey numbers when the arguments are the disjoint unions of  $K_3$ -subgraphs. The methods used are constructive and in all cases considered, we find that the removal of a single edge destroys the Ramsey property.

*Keywords: Deleted edge number, critical coloring, Gallai partition*

*Math. Subj. Class.: 05C55, 05D10, 05C35*

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# Zvezdno kritična Gallai-Ramseyjeva števila disjunktne unije trikotnikov

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Prejeto 22. februarja 2022, sprejeto 6. oktobra 2022, objavljeno na spletu 15. novembra 2022

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## Povzetek

V Ramseyjevi teoriji grafov služijo zvezdno kritična Gallai-Ramseyjeva števila kot mera moči njim prirejenih ustreznih Gallai-Ramseyjevih števil. V tem članku ocenimo nekatere razrede zvezdno kritičnih Gallai-Ramseyjevih števil, pripadajočih disjunktne unijam  $K_3$ -podgrafov. Uporabljene metode so konstruktivne, in v vseh obravnavanih primerih se izkaže, da že odstranitev ene same povezave uniči Ramseyjevo lastnost.

*Ključne besede: Število izbranih povezav, kritično barvanje, Gallaijeva particija.*

*Math. Subj. Class.: 05C55, 05D10, 05C35*

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