


Achromatic numbers of Kneser graphs*

Gabriela Araujo-Pardo † 

*Instituto de Matemáticas, Unidad Juriquilla, Universidad Nacional Autónoma de México,
76230 Campus Juriquilla, Querétaro City, Mexico*

Juan Carlos Díaz-Patiño

*Instituto de Matemáticas, Unidad Juriquilla, Universidad Nacional Autónoma de México,
76230 Campus Juriquilla, Querétaro City, Mexico*

Christian Rubio-Montiel ‡ 

*División de Matemáticas e Ingeniería, FES Acatlán,
Universidad Nacional Autónoma de México,
53150 Acatlán, Naucalpan de Juárez, Mexico*

Received 8 June 2020, accepted 21 March 2021, published online 10 August 2021

Abstract

Complete vertex colorings have the property that any two color classes have at least an edge between them. Parameters such as the Grundy, achromatic and pseudoachromatic numbers come from complete colorings, with some additional requirement. In this paper, we estimate these numbers in the Kneser graph $K(n, k)$ for some values of n and k . We give the exact value of the achromatic number of $K(n, 2)$.

Keywords: Achromatic number, pseudoachromatic number, Grundy number, block designs, geometric type Kneser graphs.

Math. Subj. Class.: 05C15, 05B05, 05C62

*The authors wish to thank the anonymous referees of this paper for their suggestions and remarks.


Part of the work was done during the I Taller de Matemáticas Discretas, held at Campus-Juriquilla, Universidad Nacional Autónoma de México, Querétaro City, Mexico on July 28 – 31, 2014. Part of the results of this paper was announced at Discrete Mathematics Days – JMDSA16 in Barcelona, Spain on July 6 – 8, 2016, see [4].

† Araujo-Pardo was partially supported by PAPIIT of Mexico grants IN107218, IN106318 and CONACyT of Mexico grant 282280.

‡ Corresponding author.

E-mail addresses: garaujo@matem.unam.mx (Gabriela Araujo-Pardo), juancdp@im.unam.mx (Juan Carlos Díaz-Patiño), christian.rubio@acatlan.unam.mx (Christian Rubio-Montiel)

Akromatska števila Kneserjevih grafov*

Gabriela Araujo-Pardo † 

*Instituto de Matemáticas, Unidad Juriquilla, Universidad Nacional Autónoma de México,
76230 Campus Juriquilla, Querétaro City, Mexico*

Juan Carlos Díaz-Patiño

*Instituto de Matemáticas, Unidad Juriquilla, Universidad Nacional Autónoma de México,
76230 Campus Juriquilla, Querétaro City, Mexico*

Christian Rubio-Montiel ‡ 

*División de Matemáticas e Ingeniería, FES Acatlán,
Universidad Nacional Autónoma de México,
53150 Acatlán, Naucalpan de Juárez, Mexico*

Prejeto 8. junija 2020, sprejeto 21. marca 2021, objavljeno na spletu 10. avgusta 2021

Povzetek

Polna barvanja vozlišč imajo lastnost, da imata poljubna dva barvna razreda vsaj eno povezavo med njima. Parametri, kot so: Grundyjevo število, akromatsko ter psevdoakromatsko število izhajajo iz polnih barvanj, z nekaj dodatnimi zahtevami. V tem članku predstavimo ocene teh števil v Kneserjevem grafu $K(n, k)$ za nekatere vrednosti n in k . Podamo natančno vrednost akromatskega števila grafa $K(n, 2)$.

Ključne besede: Akromatsko število, psevdoakromatsko število, Grundyjevo število, blok dizajni, Kneserjevi grafi geometrijskega tipa.

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*Avtorji se želijo zahvaliti anonimnim recenzentom tega članka za njihove predloge in pripombe.

Del te raziskave je bil opravljen med I Taller de Matemáticas Discretas, ki je potekala na Campus-Juriquilla, Universidad Nacional Autónoma de México, Querétaro City, Mexico od 28. do 31. julija 2014. Del rezultatov tega članka je bil najavljen v Discrete Mathematics Days – JMDA16 in Barcelona, Spain, ki so bili od 6. do 8. julija 2016, glej [4].

†Araujo-Pardo je bil delno podprt s strani PAPIIT of Mexico z nepovratnimi sredstvi IN107218, IN106318 ter s strani CONACyT of Mexico z nepovratnimi sredstvi 282280.

‡Kontaktni avtor.

E-poštni naslovi: garaujo@matem.unam.mx (Gabriela Araujo-Pardo), juancdp@im.unam.mx (Juan Carlos Díaz-Patiño), christian.rubio@acatlan.unam.mx (Christian Rubio-Montiel)