

Avoidance in bowtie systems

Mike J. Grannell , Terry S. Griggs

*The Open University, School of Mathematics and Statistics,
Walton Hall, Milton Keynes MK7 6AA, United Kingdom*

Giovanni Lo Faro , Antoinette Tripodi * 

*Università di Messina, Dipartimento di Scienze Matematiche e Informatiche,
Scienze Fisiche e Scienze della Terra, Viale Ferdinando Stagno d'Alcontres 31,
98166 Messina, Italy*

Received 20 May 2020, accepted 5 November 2021, published online 9 June 2022

Abstract

There are ten configurations of two bowties that can arise in a bowtie system. The avoidance spectrum for three of these was determined in a previous paper (Aequat. Math. **85** (2013), 347–358). In this paper the avoidance spectrum for a further five configurations is determined.

Keywords: Bowtie system, configuration, avoidance, Steiner triple system.

Math. Subj. Class. (2020): 05B30, 05B05, 05B070

*Corresponding author. G. Lo Faro and A. Tripodi were supported by INDAM (GNSAGA) and A. Tripodi was supported by FFABR Unime 2019.

E-mail addresses: m.j.grannell@open.ac.uk (Mike J. Grannell), t.s.griggs@open.ac.uk (Terry S. Griggs), lofaro@unime.it (Giovanni Lo Faro), atripodi@unime.it (Antoinette Tripodi)

Izogibanje v sistemih metuljčkov

Mike J. Grannell , Terry S. Griggs

*The Open University, School of Mathematics and Statistics,
Walton Hall, Milton Keynes MK7 6AA, United Kingdom*

Giovanni Lo Faro , Antoinette Tripodi * 

*Università di Messina, Dipartimento di Scienze Matematiche e Informatiche,
Scienze Fisiche e Scienze della Terra, Viale Ferdinando Stagno d'Alcontres 31,
98166 Messina, Italy*

Prejeto 20. maja 2020, sprejeto 5. novembra 2021, objavljeno na spletu 9. junija 2022

Povzetek

Obstaja deset konfiguracij iz dveh metuljčkov, ki lahko nastopajo v sistemu metuljčkov. Spekter izogibanja za tri izmed njih je bil določen v prejšnjem članku (Aequat. Math. **85** (2013), 347–358). V tem članku je določen spekter izogibanja za nadaljnjih pet konfiguracij.

Ključne besede: Sistem metuljčkov, konfiguracija, izogibanje, Steinerjev sistem trojk.

Math. Subj. Class. (2020): 05B30, 05B05, 05B070

*Kontaktni avtor. G. Lo Faro in A. Tripodi sta bila podprta s strani INDAM (GNSAGA) in A. Tripodi je bil podprt s strani FFABR Unime 2019.

E-poštni naslovi: m.j.grannell@open.ac.uk (Mike J. Grannell), t.s.griggs@open.ac.uk (Terry S. Griggs), lofaro@unime.it (Giovanni Lo Faro), atripodi@unime.it (Antoinette Tripodi)