

Classifying edge-biregular maps of negative prime Euler characteristic*

Olivia Reade[†] 

The Open University, Milton Keynes, UK

Jozef Širáň[‡] 

*The Open University, Milton Keynes, UK and
Slovak University of Technology, Bratislava, Slovakia*

Dedicated to Marston Conder on the occasion of his 65th birthday.

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Abstract

An edge-biregular map arises as a smooth normal quotient of a unique index-two subgroup of a full triangle group acting with two edge-orbits. We give a classification of all finite edge-biregular maps on surfaces of negative prime Euler characteristic.

Keywords: Biregular map, automorphism group, non-orientable surface, Euler characteristic.

Math. Subj. Class.: 20B25, 20F05, 57M60, 05C25

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E-mail addresses: olivia.jeans@open.ac.uk (Olivia Reade), jozef.siran@open.ac.uk (Jozef Širáň)



Klasificiranje povezavno biregularnih zemljevidov z negativno praštevilsko Eulerjevo karakteristiko*

Olivia Reade[†] 

The Open University, Milton Keynes, UK

Jozef Širáň[‡] 

*The Open University, Milton Keynes, UK and
Slovak University of Technology, Bratislava, Slovakia*

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Povzetek

Povezavno biregularen zemljevid nastane kot gladek normalni kvocient enolične podgrupe indeksa dva polne trikotniške grupe, delujoče z dvema orbitama povezav. Predstavimo klasifikacijo vseh končnih povezavno biregularnih zemljevidov na ploskvah z negativno praštevilsko Eulerjevo karakteristiko.

Ključne besede: Biregularen zemljevid, grupa avtomorfizmov, neorientabilna ploskev, Eulerjeva karakteristika.

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*Oba avtorja sta se udeležila konference Symmetries of Discrete Objects 2020, ki je potekala v Rotorui na Novi Zelandiji, in bi se rada zahvalila organizatorjema Marstonu Conderju in Gabrielu Verretu za organizacijo dogodka in za njuno velikodušno gostoljubje. Prav na tej delavnici Symmetries of Discrete Objects smo opravili del zgornje raziskave in predstavili nekaj delnih rezultatov. Avtorja bi se rada zahvalila neznanemu recenzentu, ob čigar pripombah sva prepoznala tako napake kot tudi vrzeli v najinem prvotnem rokopisu, kar nama je omogočilo bistveno izboljšati ta članek.

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E-poštna naslova: olivia.jeans@open.ac.uk (Olivia Reade), jozef.siran@open.ac.uk (Jozef Širáň)