



Also available at <http://amc-journal.eu>
ISSN 1855-3966 (printed edn.), ISSN 1855-3974 (electronic edn.)
ARS MATHEMATICA CONTEMPORANEA 11 (2016) 127–146

Two-arc-transitive two-valent digraphs of certain orders

Primož Potočnik, Katja Berčič

Abstract: The topic of this paper is digraphs of in-valence and out-valence 2 that admit a 2-arc-transitive group of automorphisms. We classify such digraphs that satisfy certain additional conditions on their order. In particular, a classification of those with order kp or kp^2 where $k \leq 14$ and p is a prime can be deduced from the results of this paper.

Keywords: Graph, digraph, arc-transitive, order.

Math. Subj. Class.: 05E18, 20B25

Dva-ločno-tranzitivni dvo-valentni digrafi določenih redov

Povzetek: Tema tega članka so digrafi vhodne in izhodne valence 2, ki dopuščajo 2-ločno-tranzitivno grupo avtomorfizmov. Klasificiramo takšne digrafe, ki zadoščajo določenim dodatnim pogojem glede njihovega reda. Tako je npr. mogoče s pomočjo rezultatov tega članka klasificirati tiste, ki imajo red kp ali kp^2 , kjer je $k \leq 14$ in je p praštevilo.

Ključne besede: Graf, digraf, ločno-tranzitiven, red.