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Roman Nedela* (nedela@savbb.sk), Univerzitni 8, 30100 Plzen, Czech Rep. *ON
REPRESENTATION OF THE AUTOMORPHISM GROUP OF A GRAPH IN UNIMODULAR
GROUP.*

We investigate a representation of the automorphism group of a connected graph X in the group of unimodular matrices U_β , of rank β , where β is the Betti number of X . We classify the graphs for which the automorphism group does not embed into U_β . It follows that if X has no pendant vertices, then the representation is faithful, except X is a simple cycle. The latter statement can be viewed as a 1-dimensional analogue of a classical theorem on Riemann surfaces of genera > 1 . This is joint work with I. Estelyi, A. Mednykh and J. Karabas. (Received February 02, 2021)