



SEMINARIUM MATEMATYKA DYSKRETNA

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Breaking small automorphisms of graphs of (almost) arbitrary cardinality

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We say that an automorphism of a graph G is *small* if it moves some vertex to another vertex. The minimum number of colours in an edge colouring of a graph that breaks its all small automorphisms is called *small distinguishing index* of G . Kalinowski, Pilśniak and Woźniak proved that the small distinguishing index of every connected finite graph except K_2 is at most 3. Furthermore, they conjectured that two colours are enough for every connected graph on at least six vertices. We prove that conjecture in a more general version, namely for both finite and infinite graphs of order at least 6.