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Title: Borel chromatic numbers: basis and antibasis results

Abstract: The G_0 dichotomy states that there exists a Borel graph of uncountable Borel chromatic number that admits a Borel homomorphism to each such graph with uncountable Borel chromatic number. Hence, the collection of graphs with uncountable Borel chromatic number has a single element basis. We show that the analogous statement fails for the collection of graphs with infinite Borel chromatic numbers, in fact, there is no Borel graph of chromatic number at least 4 which would admit a homomorphism to each graph with infinite Borel chromatic number. Thus, the only remaining question is the existence of a single element basis for the collection of Borel graphs with chromatic number 3. We show that in this case the answer is affirmative.