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Homomorphisms to Reflexive Oriented and Edge-Coloured Graphs

In the study of graph homomorphisms, the existence of non-trivial homomorphisms to reflexive targets isn't particularly interesting; if the target has at least one edge between a pair of distinct vertices, such a homomorphism always exists. For oriented and 2-edge-coloured graphs, however, the picture is much more complicated. In this talk we examine non-trivial homomorphisms of such graphs to reflexive targets. Among other things we study the structure of such graphs that admit only proper homomorphisms to reflexive targets.