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Locally-injective homomorphisms to tournaments

Possible definitions of local injectivity for a homomorphism of an oriented graph G to an oriented graph H include the following: for each vertex of G the mapping is injective when restricted to (i) its closed in-neighbourhood; or (ii) its closed in-neighbourhood and closed out-neighbourhood separately; or (iii) its closed in-neighbourhood and closed out-neighbourhood together. We focus on the situation where H is a reflexive tournament and describe dichotomy theorems for the complexity of the locally injective homomorphism problem in all cases. Partial results for the case where H is an irreflexive tournament are also mentioned.