

List homomorphisms - time and space

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Abstract

List homomorphisms generalize list colourings and offer a useful model for many combinatorial and applied problems. Unlike the situation for general homomorphisms, the complexity of list homomorphism problems is well understood, for digraphs and even more general structures. In this survey I will report on recent progress on the time and space complexity of the list homomorphism problem, including joint work with Dalmau, Egri, Larose and Rafiey.