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The category of matroids

Abstract
We explore the properties of a certain category of matroids and "strong maps" (an appropriate and commonly used type of function); limits, colimits, subcategories of interest and relevant adjunctions and monads, factorisation systems. We also explore functors to and from categories such as vector spaces and lattices, which exhibit interesting properties. Furthermore, we examine common combinatorial constructions from the perspective of functors and monoidal products. Lastly, we present a categorical characterisation of the greedy algorithm.