

Adjoint functors in graph theory

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Plenty of graph-theoretic constructions are adjoint functors in disguise; I will present some examples. While there is a complete characterisation of adjoint functors in the category of (both directed and undirected) graphs and homomorphisms, for some applications it would be interesting to have such a characterisation in the corresponding thin category (a.k.a. quasi-order: where there is at most one arrow between any two objects). I will show partial results in this direction (which are joint work with Claude Tardif).