Jordan, F.; **Kalantari, I.**; **Pajoohesh, H.**
A general separation theorem for various structures. (English) Zbl 07301178
Acta Math. Hung. 162, No. 1, 345-363 (2020)

In this paper the authors give a general treatment, in ZFC, of separation results with several examples in old and new settings. They define the notion of a solid operator that leads to the notion of separation and also characterize those topological spaces for which the closure of a set is a solid operator. Further, it is proved a separation theorem for solid operators which will be used to characterize those graphic matroids whose span is a solid operator. Also, the separation theorem is used to prove a theorem of *Z. Páles* [Arch. Math. 52, No. 3, 265–268 (1989; Zbl 0651.20067)].

Reviewer: Ioan Tomescu (Bucureşti)

MSC:

54A05	Topological spaces and generalizations (closure spaces, etc.)
06A15	Galois correspondences, closure operators (in relation to ordered sets)
05B35	Combinatorial aspects of matroids and geometric lattices

Keywords:

separation theorem; solid operator; closure operator; graphic matroid; solid topology

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