

Santi Spadaro

A note on discrete sets

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Abstract: We give several partial positive answers to a question of Juhász and Szentmiklóssy regarding the minimum number of discrete sets required to cover a compact space. We study the relationship between the size of discrete sets, free sequences and their closures with the cardinality of a Hausdorff space, improving known results in the literature.

Keywords: discrete set, dispersion character, compact space, Eberlein compact, free sequence, elementary submodel

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