

On \varkappa -metrisable and stratifiable spaces

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Abstract

Among generalisations of metric there is one which resembles “the distance” between a point and a regular closed subset. Such a distance (a function satisfying certain conditions) is called a \varkappa -metric. It is known that the existence of a \varkappa -metric can be characterised in terms of the existence of a system of approximations of regular open subsets. The existence of such a system for various classes of open subsets in spaces like the Sorgenfrey line, double arrow space, and the Niemytzki plane, will be discussed.