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Functor of extension of Λ -isometric maps between central subsets of the unbounded Urysohn universal space

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Abstract: The aim of the paper is to prove that in the unbounded Urysohn universal space \mathbb{U} there is a functor of extension of Λ -isometric maps (i.e. dilations) between central subsets of \mathbb{U} to Λ -isometric maps acting on the whole space. Special properties of the functor are established. It is also shown that the multiplicative group $\mathbb{R} \setminus \{0\}$ acts continuously on \mathbb{U} by Λ -isometries.

Keywords: Urysohn's universal space, ultrahomogeneous spaces, functor, extensions of isometries

AMS Subject Classification: 54C20, 54E40, 54E50

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