

Analysis on homogeneous quasi-metric spaces

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Extrapolation theorems will be derived for some functional spaces considered on homogeneous quasi-metric spaces. The main goal of the paper is to study some issues of harmonic analysis on spaces of homogeneous type (SHT), (that is, quasi-metric spaces with doubling measure). There are many reasons, other than directly natural mathematical generalizations. The need for spaces of homogeneous type arises when we want to consider a metric space introduced on some abstract set and analyze it. Note that results of such a general type, obtained in homogeneous spaces, immediately find applications in the study of fractal-type sets.