

Weighted Morrey Spaces on Non-homogeneous Metric Measure Spaces *

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Abstract. Let (\mathcal{X}, d, μ) be a metric measure space satisfying the so-called upper doubling condition and the geometrically doubling condition. In this setting, we introduce the weighted Morrey space and the weighted weak Morrey space, and show several properties of these spaces. As applications, some weighted weak type estimates for the Hardy-Littlewood maximal operator and the Calderón-Zygmund type operator are established.

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