

On a Measure of Non-compactness for Maximal and Potential Operators

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Abstract. A measure of non-compactness (essential norm) for maximal functions and potentials defined on homogeneous groups are estimated. Similar problem for Poisson integrals, partial sums of the Fourier series and Sobolev embeddings is studied. In particular, in the most cases we conclude that there is no weight pair for which these operators acting between two weighted Lebesgue spaces are compact.

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