LISBOA | UNIVERSIDADE DE LISBOA

<u>Seminário CEAFEL</u>*

31 Maio – 17:00 - sala 6.2.49

On a class of Integral operators in central generalized Morrey spaces

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Abstract:

We find conditions for the boundedness of integral operators K which commute with dilations and rotations, in a central generalized Morrey space. We also show that under the same conditions these operators preserve the subspace of Morrey spaces, known as vanishing Morrey space. In the case of non-negative kernels, we also give necessary conditions for the boundedness. In the case of classical Morrey spaces the obtained sufficient and necessary conditions coincide with each other. In the one-dimensional case we also obtain similar results for global Morrey spaces. In the case of radial kernels we obtain stronger estimates of Kf via spherical means of f. We demonstrate the efficiency of the obtained conditions for a variety of examples such as weighted Hardy operators, weighted Hilbert operator, their multi-dimensional versions and others.

FCT Fundação para a Ciência e a Tecnologia

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