

Composition and multiplication operators between different Orlicz spaces

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Abstract. We study the composition and multiplication operators between function spaces generated by different Orlicz functions over the same non-atomic measure space. We give necessary and sufficient conditions for the boundedness of the operators in terms of the summability of some integral involving certain complementary functions in the sense of Young. Then, a sufficient condition for the compactness of the composition operator, separately in the case of a finite measure space, and an infinite measure space, is provided, as well as a sufficient condition for its non-compactness.

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