

“Summability of Lipschitz maps on $C(K)$ –space”

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One of the main reasons why the operator ideal theory for linear maps was created was to provide a new way of understanding the summability of series in Banach spaces. It is then natural to extend the developed machinery to broader frameworks, such as in the contexts of multilinear operators or Lipschitz maps. Obtaining significant results for the case of Lipschitz operators is the motivation for the research that will be explained in this talk. In particular, some variants of (q, p) –summability for Lipschitz operators Lipschitz maps acting between metric spaces will be explained. Following Pisier’s classical work on (q, p) -summability we will focus on Lipschitz operators from $C(K)$ –spaces to metric spaces. As in the linear case, the key result is an integral domination involving Lipschitz-type inequalities for Lipschitz operators, which is shown to be equivalent to $(q, 1)$ –summability for maps under certain requirements. As a direct consequence of our results, we naturally recover Pisier’s result for linear operators.