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Lipschitz *p*-compact mappings

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Abstract
We introduce the notion of Lipschitz p-compact operators. We show that they can be seen as a natural extension of the linear p-compact operators of Sinha and Karn and we transfer some properties of the linear case into the Lipschitz setting. Also, we introduce the notions of Lipschitz-free p-compact operators and Lipschitz locally p-compact operators. We compare all these three notions and show different properties. Finally, we exhibit examples to show that these three notions are different.

Keywords Lipschitz operators · Lipschitz p-compact operators · Lipschitz-free p-compact mappings · Locally p-compact mappings

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1 Introduction

Since the work of Farmer and Johnson [8], where the notion of p-summing Lipschitz functions was introduced, there was an increasing interest in the study of different

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