

MULTILINEAR MIXING OPERATORS AND LIPSCHITZ MIXING OPERATOR IDEALS

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Abstract. In [15], E. A. Sánchez Pérez introduced the class of $(s; q, \theta)$ -mixing operators, as a generalization of $(s; q)$ -mixing operators. We investigate analogous concepts here for the case of multilinear operators between Banach spaces and Lipschitz mappings between metric spaces, introducing the class of $(s, q; p_1, \dots, p_m; \theta)$ -mixing multilinear operators and the Lipschitz Banach ideal of (s, q, θ) -mixing mappings show that our approach provides a multilinear and Lipschitz extension of quotient theorem like the linear case. Several characterizations of these mappings are presented, especially, every Lipschitz (s, q) -mixing map is Lipschitz (s, q, θ) -mixing map and a result relies on the duality theory for (q, θ) -absolutely Lipschitz operators are given.

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