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On homogeneity and Ramsey properties of L_p -spaces

We shall present new results on the approximate homogeneity of the classical L_p -spaces, $1 \leq p < +\infty$, or equivalently on the approximate transitivity of the action of the isometry groups of those spaces. We shall indicate a manner in which Fraïssé theory may be developed in this context to claim that L_p is the Fraïssé limit of (some class of) its subspaces, and shall discuss the difference between the case $p = 4, 6, 8, \dots$ and the other case. Finally we shall explain how to recover from this the extreme amenability of the isometry group of L_p (proved by Gromov-Milman for $p = 2$ and Giordano-Pestov for the other values). Joint work with J. Lopez-Abad, B. Mbombo, S. Todorcevic.