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“Lipschitz functions and polynomials on ℓ_2 ”

We shall present the outcomes of a joint paper with Petr Hájek, motivated by the study of approximation properties of Banach spaces of Lipschitz functions—in particular by the question, posed by Gilles Godefroy, whether $\text{Lip}_0(\ell_2)$ admits the approximation property. Our approach to the question is to study the existence of bounded projections from spaces of Lipschitz functions on a Banach space onto subspaces of homogeneous polynomials. Therefore, we also connect to the classical result by Joram Lindenstrauss that X^* is complemented in $\text{Lip}_0(X)$ for every Banach space X .
