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Approximate projectivity for Banach modules.

ABSTRACT. There exist several (nonequivalent) approaches to the notion of an approximately projective Banach module. In this talk, two new general versions of approximate projectivity will be presented. Our definitions involve the topology of uniform convergence on a fixed class of bounded sets. The first concept is motivated by an earlier investigation by the author of flat modules with the approximation property. The another, stronger, notion is well compatible with general homological constructions. In the case of compact sets these two definitions give the same class of approximately projective modules with the most interesting properties.