

APPROXIMATION PROPERTIES IN BANACH SPACES

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Most of the classical Banach spaces have bases, and thus good approximation schemes which allow to perform explicit computations. However, Per Enflo opened a new era of functional analysis in 1972 by showing the existence of Banach spaces which fail the approximation property. Progress has been made since then, but a bunch of natural problems on approximation properties remain open, for instance in the newly considered class of "free Banach spaces". We will investigate some of these problems.

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