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Title: Looking at the bounded inversion conjecture via model operators

Abstract: Bourgain-Tzafriri's bounded inversion problem is to answer the following question. Given an orthonormal basis (e_j) in a Hilbert space and a bounded operator T on it having a matrix (t_{ij}) with respect to (e_j) such that $\inf_j |t_{jj}| > 0$, whether there exists a partition σ_k , $k = 1, \dots, n$, of the integers making all compression operators $(t_{ij})_{i,j \in \sigma_k}$ boundedly invertible? The question is still open and is known to be equivalent to the Kadison-Singer problem. We give a counterexample to a stronger version of the problem replacing "orthonormal basis" by "a normalized asymptotically block-orthogonal basis". The construction is based on a choice of a sequence of Szegő reproducing kernels and a suitable function $T = f(M)$ of the corresponding model operator M . We discuss whether the same operator could be useful for the original Bourgain-Tzafriri's problem