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SUBMAXIMAL OPERATOR SPACE STRUCTURES ON BANACH SPACES

VINOD KUMAR. P AND M. S. BALASUBRAMANI

Abstract. Subspaces of maximal operator spaces are called *submaximal* spaces and in general, they need not be maximal. We call those maximal operator spaces with the property that all submaximal spaces turn out to be maximal as *hereditarily maximal* spaces. Any two Banach isomorphic subspaces of a hereditarily maximal space will be completely isomorphic as operator spaces. We derive a characterization of these spaces. We introduce a notion of distance of an operator space to the class of submaximal spaces and discuss some related results.

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