1113-46-311 Pavlos Motakis* (pavlos@math.tamu.edu), Department of Mathematics, Texas A&M University, College Station, TX 77843. On the structure of separable \mathcal{L}_{∞} -spaces.

In 1980 J. Bourgain and F. Delbaen introduced a construction method, used to obtain \mathcal{L}_{∞} -spaces not containing c_0 . A large variety of \mathcal{L}_{∞} -spaces has been constructed with this method, such an example is the Argyros-Haydon space, the first Banach space satisfying the scalar-plus-compact property. Based on the aforementioned construction, we give a general definition of a Bourgain-Delbaen space and prove that every separable \mathcal{L}_{∞} -space is isomorphic to such a space. We use this general approach to obtain Bourgain-Delbaen spaces as quotients of simpler Bourgain-Delbaen spaces. This is analogous to the use of an unconditional norming set as the frame for an HI construction. We also mention some recent examples of \mathcal{L}_{∞} -spaces, such as an asymptotic $c_0 \mathcal{L}_{\infty}$ -space not containing c_0 and a space with the scalar-plus-compact property having no reflexive subspaces.

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