Sequence spaces induced by submeasures

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The concept of Banach sequence spaces induced by submeasures, as shown in [1], is relatively fresh. The motivation of this talk is to present that this approach can generate a variety of spaces, and indeed some spaces that have probably not been investigated ever before. Particular focus will be applied to a newly discovered subfamily of sequence spaces induced by submeasures of the form $\Phi(A \subseteq \mathbb{N}) = \phi(\min(A))$ where the series of ϕ is convergent. They have interesting properties potentially linking them to the study of discrete-time dynamical systems. Further possible linkage is to the notion of topological entropy (compare [2]).

References

[1] Piotr Borodulin-Nadzieja, Barnabás Farkas, Analytic P-ideals and Banach spaces, *Journal of Functional Analysis*, **279** (2020);
[2] Karen Butt, *An introduction to topological entropy*, math.uchicago.edu, 2014.