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Jozef Bobok, KM FSv ČVUT in Prague, Thákurova 7, 166 29 Praha 6 Czech Republic. email: bobok@mat.fsv.cvut.cz

THE TOPOLOGICAL ENTROPY OF BANACH SPACES

We investigate some properties of (universal) Banach spaces of real functions in the context of topological entropy. Among other things, we show that any subspace of $C([0,1])$ which is isometrically isomorphic to ℓ_1 contains a functions with infinite topological entropy. Also, for any $t \in [0,\infty]$, we construct a (one-dimensional) Banach space in which any nonzero function has topological entropy equal to t.

References

J. Bobok, H. Bruin, The topological entropy of Banach spaces, to appear in Journal of Difference Equations and Applications, 2012.

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