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EVERYWHERE SURJECTIVE AND SIERPIŃSKI-ZYGMUND FUNCTIONS

During the talk, I will introduce the notion of an everywhere κ surjective function and recall the notion of Sierpiński-Zygmund function: in the sense of continuous and Borel mappings. The main part of the talk will be the proofs of the following facts:

- the set of everywhere but not strongly everywhere surjective complex functions is strongly $\mathfrak{c}$-algebrable and its $2^{\mathfrak{c}}$-algebrability is consistent with ZFC

- under CH the set of everywhere surjective complex functions which are Sierpiński-Zygmund in the sense of continuous but not Borel functions is strongly $\mathfrak{c}$-algebrable.

joint work with A. Bartoszewicz, S. Głąb and T. Natkaniec. The results come from the paper *Algebraic structures in the sets of surjective functions*, J. Math. Anal. Appl. 441 (2016), no. 2, 574-585.