

On property (B) in function spaces

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A topological space Z is said to have the property (B) of Banach (cf. [1]) if there exists a countable family of closed nowhere dense subsets of Z absorbing all compact subsets of Z ; that is, each compact subset of Z is contained in some member of this family. During the talk we will provide characterizations of those Tikhonov spaces X such that the spaces of real-valued continuous functions $C_p(X)$ and $C_k(X)$, with the pointwise and compact-open topologies respectively, possess property (B) . If time allows, we will also discuss miscellaneous results concerning those properties.

References

- [1] M. KRUPSKI AND W. MARCISZEWSKI, *On the weak and pointwise topologies in function spaces II*, J. Math. Anal. Appl., 452 (2017), pp. 646–658.
- [2] M. SAKAI, *Two properties of $C_p(X)$ weaker than the Fréchet Urysohn property*, Topology Appl., 153 (2006), pp. 2795–2804.
- [3] ———, *κ -Fréchet Urysohn property of $C_k(X)$* , Topology Appl., 154 (2007), pp. 1516–1520.

*This is joint work with Mikołaj Krupski (Universidad de Murcia and University of Warsaw) and Witold Marciszewski (University of Warsaw).