

**Taras Banach, Joanna Garbulińska-Węgrzyn**  
*The universal Banach space with  
a  $K$ -suppression unconditional basis*

Comment.Math.Univ.Carolin. 59,2 (2018) 195–206.

**Abstract:** Using the technique of Fraïssé theory, for every constant  $K \geq 1$ , we construct a universal object  $\mathbb{U}_K$  in the class of Banach spaces possessing a normalized  $K$ -suppression unconditional Schauder basis.

**Keywords:** 1-suppression unconditional Schauder basis; rational spaces; isometry

**AMS Subject Classification:** 46B04, 46M15, 46M40

REFERENCES

- [1] Albiac F., Kalton N. J., *Topics in Banach Space Theory*, Graduate Texts in Mathematics, 233, Springer, Cham, 2016.
- [2] Fabián M., Halaba P., Hájek P., Montesinos Santalucía V., Pelant J., Zizler V., *Functional Analysis and Infinite-Dimensional Geometry*, CMS Books in Mathematics/Ouvrages de Mathématiques de la SMC, 8, Springer, New York, 2001.
- [3] Fraïssé R., *Sur quelques classifications des systèmes de relations*, Publ. Sci. Univ. Alger. Sér. A. **1** (1954), 35–182 (French).
- [4] Garbulińska-Węgrzyn J., *Isometric uniqueness of a complementably universal Banach space for Schauder decompositions*, Banach J. Math. Anal. **8** (2014), no. 1, 211–220.
- [5] Gurarii V. I., *Spaces of universal placement, isotropic spaces and a problem of Mazur on rotations of Banach spaces*, Sibirsk. Mat. Zh. **7** (1966), 1002–1013 (Russian).
- [6] Johnson W. B., Szankowski A., *Complementably universal Banach spaces*, Studia Math. **58** (1976), no. 1, 91–97.
- [7] Kadec M. Ī., *On complementably universal Banach spaces*, Studia Math. **40** (1971), 85–89.
- [8] Kubiś W., *Fraïssé sequences: category-theoretic approach to universal homogeneous structures*, Ann. Pure Appl. Logic **165** (2014), no. 11, 1755–1811.
- [9] Kubiś W., Solecki S., *A proof of uniqueness of the Gurarii space*, Israel J. Math. **195** (2013), no. 1, 449–456.
- [10] Pelczyński A., *Projections in certain Banach spaces*, Studia Math. **19** (1960), 209–228.
- [11] Pelczyński A., *Universal bases*, Studia Math. **32** (1969), 247–268.
- [12] Pelczyński A., *Any separable Banach space with the bounded approximation property is a complemented subspace of a Banach space with a basis*, Studia Math. **40** (1971), 239–243.
- [13] Pelczyński A., Wojtaszczyk P., *Banach spaces with finite-dimensional expansions of identity and universal bases of finite-dimensional subspaces*, Studia Math. **40** (1971), 91–108.
- [14] Schechtman G., *On Pelczyński’s paper “Universal bases” (Studia Math. 32 (1969), 247–268)*, Israel J. Math. **22** (1975), no. 3–4, 181–184.