The elusive geometry of the Banach space ℓ_∞/c_0

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Banach spaces and topological preliminaries

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Suppose that X, Y are Banach spaces and

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Theorem (Dow, Shelah - Top. Ap. 2008)

It is consistent that there are two disjoint open subsets $U, V \subseteq N^*$ with $\overline{U} \cap \overline{V} = \{x\}$ for some $x \in N^*$ and neither $\overline{U}$ nor $\overline{V}$ is homeomorphic to N^*.

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Some references:

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C. Brech, P. Koszmider, ℓ_∞*-sums and the Banach space* ℓ_∞/c_0. Fund. Math. 224 (2014), 175–185.

P. Koszmider, C. Rodriguez Porras; in preparation.