

Noncommutative analogs of the Gurarij Banach space

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Working in the framework of Fraïssé theory for metric structures developed by Ben Yaacov, we show that finite-dimensional exact operator spaces form a Fraïssé class. We identify the limit as the (noncommutative) Gurarij operator space introduced by Oikhberg. As a consequence we obtain that such a space is unique up to complete isometry, homogeneous, and universal for separable exact operator spaces. We also show that finite-dimensional exact operator systems form a Fraïssé class. The corresponding limit is a nuclear operator system that contains unittally completely isometrically every separable exact operator system. It is moreover universal in the sense of Kirchberg and Wasserman, i.e. the canonical $*$ -homomorphism from the universal C^* -algebra to the C^* -envelope is a $*$ -isomorphism.