Big Ramsey degrees in the metric context

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Big Ramsey degrees are combinatorial invariants quantifiying the amount of information that needs to be added to a mathematical structure in order to get an analogue of the infinite Ramsey theorem in it. They are an active research topic in combinatorics, and until now, they have only been studied for discrete structures.

I will present a joint work in progress with A. Bartoš, T. Bice, J. Hubička, and M. Konečný in which we define a notion of big Ramsey degrees for metric structures. In this context, big Ramsey degrees, if they exist, are compact metric spaces. We are, for instance, able to prove that the Urysohn sphere has compact big Ramsey degrees.

If time permits, the case of uniform structures (without a metric) will also be discussed.

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