Dvoretzky-type theorem for locally finite subsets of a Hilbert space

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A metric space is called *locally finite* if each ball of finite radius in it has finitely many elements.

The main result of the talk: If a locally finite metric space embeds isometrically into a Hilbert space, then it embeds almost isometrically into an arbitrary infinite-dimensional Banach space.

I shall present some background on this topic and some ideas of the proof. I intend to make my talk accessible for non-experts.

Based on a joint with F. Catrina and S. Ostrovska paper.