The Lipschitz free space of a metric space

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Let M be a metric space. There exists a Banach space X containing M isometrically such that every Lipschitz mapping f from M into any Banach space Y admits a unique extension to a linear operator F from X into Y whose operator norm is equal to the Lipschitz constant of f. X is essentially unique and is called the Lipschitz free space or the Arens-Eells space of M. We will describe some recent results concerning the Lipschitz free space of some recursively defined families of finite metric spaces.

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