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Sergei Kalmykov, Leonid V. Kovalev* (lvkovale@syr.edu) and **Tapio Rajala**. *Metrically removable sets*.

A compact subset K of Euclidean space \mathbb{R}^n is called metrically removable if any two points a, b of its complement can be joined by a curve that is disjoint from K and has length arbitrarily close to $|a - b|$. Every set of zero $(n - 1)$ -dimensional measure is metrically removable, but not conversely. Metrically removable sets can even have positive n -dimensional measure. I will describe some properties of metrically removable sets and outline a proof of the following fact: totally disconnected sets of finite $(n - 1)$ -dimensional measure are metrically removable. This answers a question raised by Hakobyan and Herron in 2008. (Received February 03, 2018)