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Concerning quantization for probability measures in complete metric spaces.

The theory of quantization for probability measures μ supported on a compact set in \mathbb{R}^n has received considerable attention in the literature. The existing literature on quantization concentrates primarily on an invariant measure μ associated with an iterated function system. Building on the literature, this contribution aims to extend the theory of quantization in a complete metric space. In particular, this provides a formula for quantization dimension of an invariant measure μ associated with an iterated function system consisting of a finite number of contractive infinitesimal similitudes in a complete metric space. Not unexpectedly, this constitutes a generalization of the known result on quantization dimension of a self-similar measure in the Euclidean space. This note also records the continuous dependence of quantization dimension of μ on the parameters involved in its definition. (Received September 15, 2020)