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Autore	Kigami Jun
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Sommario/riassunto	The aim of these lecture notes is to propose a systematic framework for geometry and analysis on metric spaces. The central notion is a partition (an iterated decomposition) of a compact metric space. Via a partition, a compact metric space is associated with an infinite graph whose boundary is the original space. Metrics and measures on the space are then studied from an integrated point of view as weights of the partition. In the course of the text: It is shown that a weight corresponds to a metric if and only if the associated weighted graph is Gromov hyperbolic. Various relations between metrics and measures such as bilipschitz equivalence, quasisymmetry, Ahlfors regularity, and the volume doubling property are translated to relations between weights. In particular, it is shown that the volume doubling property between a metric and a measure corresponds to a quasisymmetry between two metrics in the language of weights. The Ahlfors regular conformal dimension of a compact metric space is characterized as the critical index of p-energies associated with the partition and the weight function corresponding to the metric. These notes should interest researchers and PhD students working in conformal geometry, analysis on metric spaces, and related areas.