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Summary: During the last decade Optimal Transport had a relevant role in the study of geometry of singular spaces that culminated with the Lott-Sturm-Villani theory. The latter is built on the characterisation of Ricci curvature lower bounds in terms of displacement convexity of certain entropy functionals along $W_2$-geodesics. Substantial recent advancements in the theory (localization paradigm and local-to-global property) have been obtained considering the different point of view of functionals along integral curves of Lipschitz maps. In this note we show that the two approaches produce the same curvature dimension and local-to-global property) have been obtained considering the different point of view of transport problems yielding a different curvature dimension and local-to-global property. In particular we show that the two definitions) have been obtained considering the different point of view of functionals along integral curves of Lipschitz maps.

MSC: 49Q22 Optimal transportation

References:


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