

Optimal transportation on non-compact manifolds

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Abstract

In this work, we show how to obtain for non-compact manifolds the results that have already been done for Monge Transport Problem for costs coming from Tonelli Lagrangians on compact manifolds. In particular, the already known results for a cost of the type d^r , $r > 1$, where d is the Riemannian distance of a complete Riemannian manifold, hold without any curvature restriction.