Lip-density and Algebras of Lipschitz Functions on Metric Spaces *

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Abstract: Our aim in this note is to give an extension of the classical Myers-Nakai theorem in the context of Finsler manifolds. To achieve this, we provide a general result in this line for subalgebras of bounded Lipschitz functions on length metric spaces. We also establish some connection with the uniform approximation of bounded Lipschitz functions by functions in the subalgebra, keeping control on the Lipschitz constants.

Key words: Algebras of Lipschitz functions, approximation, Finsler manifolds.

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