Geometry Seminar

On the construction of complete expanding gradient Ricci solitons

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Time: 10:30 am

Abstract. In this presentation, we will address a study on gradient Ricci solitons warped products whose base is the Euclidean space. We will show that the warping functions of these manifolds are invariant under the action of the $(n-1)$-dimensional translation group. We will characterize the potential function when the torsion function depends only on one variable, which is a particular case of invariance by translation. Finally, we will build complete examples of expanding gradient Ricci solitons, that are not common in the literature. The results of this work were obtained together with Márcio de Sousa (UFMT), Romildo Pina (UFG) and Tibério Martins (UFMT).