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SEMINÁRIO DE GEOMETRIA

Dia 16 de dezembro (sexta-feira), às 14H00, sala 6.2.33

Hypersurfaces of the sphere with a totally geodesic foliation of codimension one

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Abstract:

Several authors have investigated whether on a given Riemannian manifold M^n there exists a totally geodesic foliation of codimension one, as well as the inverse problem of determining whether one can find a Riemannian metric on a manifold M^n with respect to which a given smooth foliation of codimension one on M^n becomes totally geodesic.

A related problem, but extrinsic in nature, may be formulated as follows:

What are all Euclidean hypersurfaces $f : M^n \rightarrow \mathbb{R}^{n+1}$, $n \geq 3$, that carry a foliation of codimension one with totally geodesic (complete or not) leaves?

This problem was solved by Dajczer, Rovenski and Tojeiro (2015).

In this talk we will study the spherical case.

This is a joint work with Susana Duarte Santos.

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