

# RIGIDITY OF LINEAR WEINGARTEN HYPERSURFACES IN LOCALLY SYMMETRIC MANIFOLDS

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**Resumo/Abstract:** This work corresponds to the paper [1]. Our purpose is to study the rigidity of complete linear Weingarten hypersurfaces immersed in a locally symmetric manifold obeying some standard curvature conditions (in particular, in a Riemannian space with constant sectional curvature). Under appropriated constrains on the scalar curvature function, we prove that such a hypersurface must be either totally umbilical or isometric to an isoparametric hypersurface with two distinct principal curvatures, one of them being simple. Furthermore, we also deal with the parabolicity of these hypersurfaces with respect to a suitable ChengYau modified operator.

## References

- [1] Luis J. Alías, Henrique F. de Lima, Josué Meléndez, and Fábio R. dos Santos *Rigidity of linear Weingarten hypersurfaces in locally symmetric manifolds*, Mathematische Nachrichten 1–16 (2015)/DOI 10.1002/mana.201400296.