



**Universidade Federal de Campina Grande**  
**Centro de Ciências e Tecnologia**  
**1 Escola de Inverno em Geometria Diferencial**



**Título: “On the linear Weingarten spacelike submanifolds immersed in a locally symmetric semi-Riemannian space”**

**Palestrante: Weiller Felipe Chaves Barboza**

**Resumo:** Let  $M^n$  be an  $n$ -dimensional complete linear Weingarten spacelike submanifold immersed with parallel normalized mean curvature vector field and flat normal bundle in a locally symmetric semi-Riemannian space  $L_p^{n+p}$  of index  $p$ , which obeys standard curvature constraints (such an ambient space can be regarded as an extension of a semi-Riemannian space form). In this setting, our purpose is to establish sufficient conditions guaranteeing that such a spacelike submanifold  $M^n$  be either totally umbilical or isometric to an isoparametric hypersurface of a totally geodesic submanifold  $L_1^{n+1} \hookrightarrow L_p^{n+p}$ , with two distinct principal curvatures, one of which is simple. Our approach is based on a suitable Simons type formula jointly with a version of the Omori-Yau's generalized maximum principle for a Cheng-Yau's modified operator.

**Data:** 20 de agosto de 2020 (Quinta Feira)

**Link:** [meet.google.com/npz-qedi-vsy](https://meet.google.com/npz-qedi-vsy)

**Data:** 10:00

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