

# PSEUDO-PARALLEL SURFACES OF $\mathbb{S}^3 \times \mathbb{R}$ AND $\mathbb{H}^3 \times \mathbb{R}$ .

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## Resumo/Abstract:

The aim of this work is to investigate pseudo-parallel surfaces of  $\mathbb{S}^3 \times \mathbb{R}$  and  $\mathbb{H}^3 \times \mathbb{R}$ . We focus on some results obtained in [1] and make analogous versions for the products  $\mathbb{S}_c^3 \times \mathbb{R}$  and  $\mathbb{H}_c^3 \times \mathbb{R}$ . After this, based on [3] we prove that there no exists pseudo-parallel surfaces with non vanishing normal curvature tensor. We give examples of semi-parallel surfaces which are not parallel and the first examples of pseudo-parallel surfaces in  $\mathbb{S}^3 \times \mathbb{R}$  and  $\mathbb{H}^3 \times \mathbb{R}$  which are neither semi-parallel nor just an inclusion of the pseudo-parallel surfaces of space forms in the product by  $\mathbb{R}$ .

## References

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