

# Minimal surfaces in non-Minkowskian Randers spaces

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## Abstract

In this work we investigate minimal hypersurfaces in  $\mathbb{R}^n$  with respect to Busemann-Hausdorff measure in a class of Finsler  $n$ -spaces  $(\mathbb{R}^n, \tilde{F}_b = \tilde{\alpha} + \tilde{\beta})$ , called Randers spaces, where  $\tilde{\alpha}$  is the euclidean metric and  $\tilde{\beta} = b(x)dy^n$  is a controlled one form. We emphasize the fact that  $F$  is non-Minkowskian since  $b = b(x)$  is a non-constant function of  $x$ , which is allowed here. We particularly examine graphs defined on the  $xy$ -plane that are invariant under one-dimensional isometry groups of  $(\mathbb{R}^3, \tilde{F}_b)$ . By reducing the minimal graph equation to an ordinary differential equation (ODE), we obtain a new class of explicit examples of minimal surfaces in Finsler Geometry (details in [1])

## References

- [1] N.M. Solórzano and M. Souza, *Minimal surfaces in non-Minkowskian Randers spaces*, Publ. Math. Debrecen 107/3-4 (2025), 431–449 DOI: 10.5486/PMD.2025.10177.

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