*Publ. Math. Debrecen*
**108/3-4** (2026), 401–418
DOI: 10.5486/PMD.2026.10257

# Generalized Randers metrics with special 1-form

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**Abstract.** In this paper, we investigate a generalized Randers metric with a special $\pi$-form. Precisely, following the pullback approach to global Finsler geometry, we start with a Finsler metric $(M, L)$ that admits a concurrent $\pi$-vector field, then we consider the Randers change $\widetilde{L} = L + \mathfrak{B}$, where $\mathfrak{B}$ is the associated 1-form. We study some of the geometric objects and properties attached to $(M, \widetilde{L})$. We prove that the corresponding metric tensor of $\widetilde{L}$ is nondegenerate without any conditions on the 1-form $\mathfrak{B}$. By calculating the relation between the attached geodesic sprays of $L$ and $\widetilde{L}$, we establish that the change $\widetilde{L} = L + \mathfrak{B}$ preserves the geodesics of $(M, L)$, that is, the change is projective. Moreover, under a certain condition, this change preserves the deviation tensor, the $(v)h$-torsion tensor, the $(h)h$-curvature tensor and the curvature tensor of the Barthel connection. We provide an example of a Finsler metric with some details that admits a concurrent vector field together with the associated $\pi$-form.

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*Mathematics Subject Classification:* 53C60, 53B40, 58B20.
*Key words and phrases:* Finsler metric, Randers metric, canonical spray, Barthel connection, Weyl curvature, Berwald manifold, Douglas manifold.