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Rigidity results on closed Finsler manifolds with special curvature conditions

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Abstract. In this paper, we study the properties of closed Finsler manifolds with special curvature conditions. We show that closed negatively curved Finsler manifolds are Riemannian provided that the Berwald scalar curvature is constant along geodesics. We also prove that closed Landsberg manifolds with definite mean Berwald curvature are Berwald manifolds.

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