On a Yamabe type problem in Finsler geometry
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Abstract. In this paper, a new notion of scalar curvature for a Finsler metric $F$ is introduced, and two conformal invariants $Y(M, F)$ and $C(M, F)$ are defined. We prove that there exists a Finsler metric with constant scalar curvature in the conformal class of $F$ if the Cartan torsion of $F$ is sufficiently small and $Y(M, F)C(M, F) < Y(S^n)$ where $Y(S^n)$ is the Yamabe constant of the standard sphere.