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Title: Finsler conformal transformations and the curvature invariances

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This article studies the global conformal transformations f on a Finsler space (M, F) , which satisfy $f^*F = e^{c(x)}F$, where $F := F(x, y)$ is a Finsler metric on M and $x \in M, y \in T_xM \setminus \{0\}$. We obtain the relations between some important geometric quantities of F and their correspondences respectively, including Riemann curvatures, Ricci curvatures, Landsberg curvatures, mean Landsberg curvatures and **S**-curvatures. Then, we discuss the properties of those conformal transformations on (M, F) which preserve Ricci curvature, Landsberg curvature, mean Landsberg curvature and **S**-curvature respectively.

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