

Naturally reductive homogeneous (α, β) spaces

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Abstract. In this paper, we study naturally reductive homogeneous Finsler spaces. In the literature, there are two versions of the definition for naturally reductive Finsler spaces. Our first main result shows that the two versions are equivalent. Then we study naturally reductive (α, β) -metrics and give an explicit formula for flag curvature of naturally reductive (α, β) -metrics. Finally, we compute the flag curvature of several important (α, β) -metrics, including Randers, Berwald square, Matsumoto and Kropina metrics.

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