On a Class of Projectively Flat Metrics with Constant Flag Curvature

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Abstract. In this paper, we find equations that characterize locally projectively flat Finsler metrics in the form $F = (\alpha + \beta)^2/\alpha$, where $\alpha = \sqrt{a_{ij}y^iy^j}$ is a Riemannian metric and $\beta = b_iy^i$ is a 1-form. Then we completely determine the local structure of those with constant flag curvature.