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Title: A class of Finsler surfaces whose geodesics are circles

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We determine all Finsler metrics of Randers type for which the Riemannian part is a scalar multiple of the Euclidean metric, on an open subset of the Euclidean plane, whose geodesics are circles. We show that the Riemannian part must be of constant Gaussian curvature, and that for every such Riemannian metric there is a class of Randers metrics satisfying the condition, determined up to the addition of a total derivative, depending on a single parameter. As one of several applications we exhibit a Finsler metric whose geodesics are the oriented horocycles in the Poincaré disk, in each of the two possible orientations.

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