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Title: Bi-invariant Randers metrics on Lie groups

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In this paper we study the geometry of Lie groups with bi-invariant Randers metric. We first give a necessary and sufficient condition for a left invariant Randers metric to be of Berwald type. We then prove that bi-invariant Randers metrics are of Berwald type. We give an explicit formula for the flag curvature of bi-invariant Randers metrics. Finally a necessary and sufficient condition that left invariant Randers metrics on Lie groups are bi-invariant is given.

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