**Title:** On projectively related spherically symmetric Finsler metrics

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Spherically symmetric metrics and Randers metrics form two rich classes of Finsler metrics. In this paper, we find an equation that characterizes pointwise projectively related spherically symmetric metrics. Some applications are given. In particular, by using known spherically symmetric metrics, we produce a lot of Randers metrics of quadratic Weyl curvature which are non-trivial in the sense that they are not of Weyl type.

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