Sharp systolic inequalities for Finsler spheres of revolution

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A systolic inequality is an upper bound on the length of the shortest closed geodesic of a Finsler metric on a closed manifold in term of the volume of the metric. I will present a sharp systolic inequality holding for Finsler metrics on $\mathbb{S}^2$ that are invariant under a circle action, as an application of a more general systolic inequality for $\mathbb{S}^1$ - invariant contact forms on $\mathbb{RP}^3$. This generalizes a result of Abbondandolo, Bramham, Hryniewicz and Salomão for Riemannian spheres of revolution.