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Title: Intrinsic metrics under conformal and quasiregular mappings

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The distortion of six different intrinsic metrics and quasi-metrics under conformal and quasiregular mappings is studied in a few simple domains $G \subsetneq \mathbb{R}^n$. The already known inequalities between the hyperbolic metric and these intrinsic metrics for points x, y in the unit ball $\mathbb{B}^n$ are improved by limiting the absolute values of the points x, y, and the new results are then used to study the conformal distortion of the intrinsic metrics. For the triangular ratio metric between two points $x, y \in \mathbb{B}^n$, the conformal distortion is bounded in terms of the hyperbolic midpoint and the hyperbolic distance of x, y. Furthermore, quasiregular and quasiconformal mappings are studied, and new sharp versions of the Schwarz lemma are introduced.

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