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Abstract

COMPARISON RESULTS AND GEOMETRIC PROPERTIES FOR VISUAL ANGLE METRICS

We compare the triangular ratio metric with some other metrics including visual angle metric and Cassinian metric, and we study inclusion properties of metric balls say in $\mathbb{R}^n \setminus \{0\}$. We also find the extremal points for the visual angle metric in the half space and in the ball by use of a construction based on hyperbolic geometry. Furthermore, we study distortion properties of quasiconformal maps with respect to the triangular ratio metric and the visual angle metric. This talk is based on [hvw], [hkv1], [hkv2].

References

[hvw] P. Hariri, M. Vuorinen and G. Wang: Some remarks on the visual angle metric. arXiv: 1410.5943 [math.MG] 12pp.

[hkv1] P. Hariri, R. Klén, and M. Vuorinen: Local convexity properties of the triangular ratio metric.

[hkv2] P. Hariri, R. Klén, and M. Vuorinen: Work in progress.