Results on boundary behavior of quasiregular and harmonic mappings

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We discuss connections between different conditions involving conformal capacity densities, dilatations and multiplicities of the zeros, and boundary behavior of quasiconformal and related classes of mappings. We compare Caratheódory, Koebe and Lindelöf type results for these classes of mappings to the results from classical function theory as well as those concerning quasiconformal and quasiregular mappings in plane and *n*-dimensional Euclidean space.

Sufficient conditions for the existence of angular (non-tangential) limit at a boundary point can be obtained, for example, in terms of multiplicities of zeroes of the function, which are required grow fast enough on a given sequence of points approaching the boundary [1, 2, 3] Another condition makes use of makes of capacity density of a non-tangential set at the boundary [4]. We also discuss sharpness of such conditions. This presentation is based on joint work with Daoud Bshouty, Jiaolong Chen, Stavros Evdoridis, Jie Huang, and Matti Vuorinen.

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