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**Cluster Points and Asymptotic Values
of \mathcal{C}^1 - and Planar Harmonic Functions**

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Abstract. A sufficient condition for a cluster point of a \mathcal{C}^1 -function on \mathbb{R}^2 to be an asymptotic value is given, based on a partitioning into regions of constant valence. We also obtain a sufficient condition for the cluster set of a planar harmonic function to have non-empty interior. An example is given of a planar harmonic function where the image of the critical set is not closed and such that the cluster set has non-empty interior and is a proper subset of the image.

Keywords. Planar harmonic functions, \mathcal{C}^1 -functions in \mathbb{R}^2 , cluster set, asymptotic values.

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