

Boundary unique continuation and the estimate of the singular set

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Abstract

Abstract: Unique continuation property is a fundamental property of harmonic functions, as well as solutions to a large class of elliptic and parabolic PDEs. It says that if a harmonic function vanishes to infinite order at a point, it must be zero everywhere. In the same spirit, we can use the local growth rate of harmonic functions to deduce global information, such as estimating the size of the singular set for elliptic PDEs. This is joint work with Carlos Kenig.