

Nadirashvili conjectured that for any non-constant harmonic function in  $R^3$  its zero set has infinite area. This question was motivated by the Yau conjecture on zero sets of Laplace eigenfunctions. Both conjectures can be treated as an attempt to control the zero set of a solution of elliptic PDE in terms of growth of the solution. For holomorphic functions such kind of control is possible only from one side: there is a plenty of holomorphic functions that have no zeros. While for a real-valued harmonic function on a plane the length of the zero set can be estimated (locally) from above and below by the frequency, which is a characteristic of growth of the harmonic function. We will discuss the notion of frequency, its properties and applications to the zero sets of harmonic functions in the higher dimensional case.