

A conjecture of W. Fuchs

June 22, 2009

Fuchs conjectured that $\delta(f'/f) = 0$ for all entire functions f of order less than $1/2$.

This is equivalent to the following problem of potential theory: does there exist a subharmonic function u of order less than $1/2$ and an open set G , such that G intersects every circle centered at the origin and u is locally constant on G ? (Fuchs's conjecture is true if and only if such u and G do not exist).

So far Fuchs's conjecture has been only established for entire functions of order 0.