

Correction to the paper Entire functions with two radially distributed values

In the 4-th paragraph after Theorem 5 we wrote that $1/\Gamma(-z)$ has zeros on the positive ray and 1-points close to the imaginary axis. This is a blunder: some 1-points are near the zeros.

To construct the example that we need, take a sequence $x_k \sim k \log^2 k$, $k \rightarrow \infty$, and consider the product

$$f(z) = \prod (1 - z/x_k).$$

This function has the required property which follows from the asymptotics

$$\log |f(re^{i\theta})| \sim -r(\log r)^{-1} \cos \theta, \quad c > 0,$$

when $r \rightarrow \infty$, and $re^{i\theta}$ avoids small discs around x_k . See, for example, B. Ya. Levin, Distribution of zeros of entire functions, AMS Providence, RI, 1970, Appendix VIII, p. 484.