Bochkov, I.; Romanov, R.

On zeroes and poles of Helson zeta functions. (English) J. Funct. Anal. 282, No. 8, Article ID 109398, 8 p. (2022)

Summary: We show that the analytic continuations of Helson zeta functions $\zeta_\chi(s) = \sum_{n=1}^{\infty} \chi(n) n^{-s}$ can have essentially arbitrary poles and zeroes in the strip $21/40 < \Re s < 1$ (unconditionally), and in the whole critical strip $1/2 < \Re s < 1$ under Riemann Hypothesis.

MSC:

11-XX Number theory
30-XX Functions of a complex variable

Keywords:
Helson zeta function; Dirichlet series; meromorphic extension

Full Text: DOI

References:


This reference list is based on information provided by the publisher or from digital mathematics libraries. Its items are heuristically matched to zbMATH identifiers and may contain data conversion errors. It attempts to reflect the references listed in the original paper as accurately as possible without claiming the completeness or perfect precision of the matching.