

An asymptotic formula for the $2k$ -th power mean value of $|L'/L(1 + it_0, \chi)|$

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November 2017

Abstract

Let q be a positive integer $q > 1$, and let χ be a Dirichlet character modulo q . Let $L(s, \chi)$ be the attached Dirichlet L -functions, and let $L'(s, \chi)$ denote its derivative with respect to the complex variable s . In this talk, we give an asymptotic formula for the $2k$ -th power mean value of $|L'/L(1 + it_0, \chi)|$ when χ runs over all Dirichlet characters modulo $q > 1$, for any fixed real number t_0 . This is joint work with professor Kohji Matsumoto.

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