Abstract

Let \( L(s, E) = \sum_{n \geq 1} a_n n^{-s} \) be the \( L \)-series corresponding to an elliptic curve \( E \) defined over \( \mathbb{Q} \). We prove that if \( E \) is non-CM and has non-trivial 2-torsion, then the set of positive integers \( n \) such that \( |a_n| \) is a Fibonacci number has asymptotic density 0.