Let $E$ be an elliptic curve over the field of rational numbers $\mathbb{Q}$ given by the minimal global Weierstrass equation:

$$E : y^2 + A_1 xy + A_3 y = x^3 + A_2 x^2 + A_4 x + A_6$$

and let $\Delta_E$ be its discriminant. For each prime $p$ we put

$$a_p = p + 1 - \#E(F_p),$$

where $E(F_p)$ is the reduction of $E$ modulo $p$. The $L$-function associated to $E$ is given by

$$L(s, E) = \prod_{p|\Delta_E} \frac{1}{1 - a_p p^{-s}} \prod_{p\not|\Delta_E} \frac{1}{1 - a_p p^{-s} + p^{1-2s}}.$$

The infinite product above is convergent for $Re(s) > 3/2$ and therefore we can expand it into a series $L(s, E) = \sum a_n n^{-s}$.

In this talk, we show that the set of positive integers $n$ such that $|a_n|$ is a generalized Fibonacci number has asymptotic density 0.

**Keywords.** $L$-functions of elliptic curves, linear recurrence sequences.

This is a joint work with Florian Luca.