

On certain arithmetic properties of Mahler functions

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In this talk we will focus on some arithmetic aspects of Mahler functions. In the case where a Mahler function $f(x)$ satisfies the equation $f(x) = p(x)f(x^l)$ for some integer $l > 1$ and some polynomial $p(x)$ with integer coefficients, we will discuss how the behavior of $f(x)$ mirrors on the polynomial $p(x)$, also in connection with the theory of automatic sequences. We will also present some analogies with the E - and G -functions.

This is joint work with Sara Checcoli.