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Algebraic values of analytic functions

Given an analytic function of one complex variable f, we investigate the arithmetic nature of the values of f at algebraic points. A typical question is whether $f(\alpha)$ is a transcendental number for each algebraic number α. Since there exist transcendental entire functions f such that $f^{(k)}(\alpha) \in \mathbf{Q}[\alpha]$ for any $k \geq 0$ and any algebraic number α, one needs to restrict the situation by adding hypotheses, either on the functions, or on the points, or else on the set of values.

Among the topics we discuss are recent results due to Andrea Surroca on algebraic values of analytic functions and Diophantine properties of special values of polylogarithms.

`http://www.institut.math.jussieu.fr/~miw/`