

ENTIRE FUNCTIONS AND THEIR HYPER-EXPONENT OF CONVERGENCE OF ZEROS

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Abstract

A single valued function of one complex variable which is analytic in the open complex plane is called an entire function. Let f and g be two entire functions defined in the open complex plane C . Then the composition $f \circ g$ is defined as $f \circ g(z) = f(g(z))$ for all z in the open complex plane C . The theory of distribution of values of entire (integral) functions was studied by G. Valiron (1949). The function $N(r; f)$ is called the enumerative function of f which plays an important role in the theory of entire functions. The ratio $N(r, f) / N(r, g)$ measures the comparative growth of f with respect to g . In the paper we study some growth properties of the hyper-exponent of convergence of zeros of composite entire functions in terms of slowly changing functions.

Key Words and Phrases: Entire functions, hyper-exponent of convergence of zeros.

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