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ON SOME GROWTH PROPERTIES OF COMPOSITE ENTIRE AND MEROMORPHIC FUNCTIONS FROM THE VIEW POINT OF THEIR GENERALIZED TYPE (α, β) AND GENERALIZED WEAK TYPE (α, β)

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Abstract: The main aim of this paper is to prove some results related to the growth rates of composite entire and meromorphic functions on the basis of their generalized type (α, β) and generalized weak type (α, β) , where α and β are continuous non-negative functions defined on $(-\infty, +\infty)$.

Keywords and Phrases: Entire function, meromorphic function, growth, generalized order (α, β) , generalized type (α, β) , generalized weak type (α, β) .

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1. Introduction, Definitions and Notations

Let us consider that the reader is familiar with the fundamental results and the standard notations of the Nevanlinna theory of meromorphic functions which are available in [7, 9, 14]. We also use the standard notations and definitions of the theory of entire functions which are available in [13] and therefore we do not explain those in details. Let f be an entire function and $M_f(r) = \max\{|f(z)| : |z| = r\}$.