

ON SOME RESULTS ON  $(p, q)$ -TH RELATIVE ORDER AND  
 $(p, q)$ -TH RELATIVE TYPE OF ANALYTIC FUNCTIONS  
REPRESENTED BY DIRICHLET SERIES  
IN THE HALF PLANE

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**Abstract:** In this paper we introduce the idea of  $(p, q)$ -th relative order,  $(p, q)$ -th relative type and  $(p, q)$ -th relative weak type of analytic functions represented by Dirichlet series in the half plane with respect to entire Dirichlet series where  $p$  and  $q$  are positive integers and then study some basic properties of analytic functions represented by Dirichlet series in the half plane using the concepts of  $(p, q)$ -th relative order,  $(p, q)$ -th relative type and  $(p, q)$ -th relative weak type.

**Keywords and Phrases:** Dirichlet series, analytic function, half plane,  $(p, q)$ -th relative order,  $(p, q)$ -th relative type,  $(p, q)$ -th relative weak type, property (H).

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## 1. Introduction

Let us consider that the readers are familiar with the fundamental results and the standard notations of the theory of entire functions which are available in [27]. The concept of order  $\rho(f)$  of an entire function  $f$  is classical in complex analysis.