International J.of Multi.displ.Research & Advcs in Engg. IJMRAE, Vol.1, No.I, November 2009, pp 125-136

## ON A SUBCLASS OF MEROMORPHICALLY STARLIKE FUNCTIONS WITH FIXED INVERSE POINT

## P. T. REDDY, R.B.SHARMA AND B. RAVINDAR

## Abstract

In this paper we introduce a new subclass of meromorphically univalent functions with fixed inverse point.

Let 
$$\sum_{0,M(z_0)} (\alpha)$$
 be the class of functions of the form  $f(z) = \frac{a_{-1}}{z} + \sum_{n=1}^{\infty} a_n z^n$ ,  $a_n \ge 0$ ,

 $a_{-1} > 0$  which are starlike of order  $\alpha$  ( $0 \le \alpha < 1$ ) in |z| < 1 and satisfy

$$f(z_0) = \frac{1}{z_0}, (-1 < z_0 < 1, z_0 \neq 1).$$

We determine coefficient estimates, distortion properties and radius of convexity for the class  $\sum_{0,M(z_0)}^{*} (\alpha)$ . Furthermore, we proved that the class  $\sum_{0,M(z_0)}^{*} (\alpha)$  is closed under

arithmetic mean and convex linear combinations.

-----

**Keywords** : Meromorphic, Univalent, fixed inverse point, coefficient estimates, distortion properties, radius of convexity.

AMS subject classification (2000). Primary 30 C 45