LINEAR OPERATOR ON p-VALENT FUNCTION OF COMPLEX ORDER

ESSAM AQLAN and S. R. KULKARNI

Abstract. We introduce two novel families of meromorphic multivalent functions, by using linear operator and study some properties (inclusion properties, basic properties) of these families. We also determine the neighborhood of these subclasses.

MSC 2000. 30C45, 30C50.

Key words. Linear Operator, δ-neighborhood, meromorphic multivalent function, inclusion properties.

REFERENCES

[1] CARLSON, B. C. and SHAFFER, D. B., *Starlike and prestarlike hypergeometric function*, SIAM J. Math. Anal., **15** (1984), 737–745.

[2] GOODMAN, A. W., *Univalent functions and nonanalytic curves*, Proc. Amer. Math. Soc., **8** (1957), 598–601.

[3] JACK, I. S., *Functions starlike and convex of order α*, J. London Math. Soc., (2) **3** (1971), 469–474.

[4] LIU, JIN-LIN and SRIVASTAVA, H. M., A linear operator and Associated families of meromorphically multivalent functions, J. Math. Anal. and Appl., **259** (2001), 566–581.

[5] MOGRA, M. L., *Meromorphic multivalent functions with positive coefficients*, I and II, Math. Japon., **35** (1990), 1–11, 1089–1098.

[6] RUSHEWEYH, S., *Neighborhoods of univalent functions*, Proc. Amer. Math. Soc., **81** (1981), 521–527.

[7] SRIVASTAVA, H. M. and OWA, S., *Some characterization and distortion theorems involving fractional calculus, generalized hypergeometric functions, Hadamard product, linear operators, and certain subclasses of analytic functions*, Nagoya Math. J., **106** (1987), 1–28.

Department of Mathematics,
Fergusson College, Pune - 411004, India
E-mail: `kulkarni_ferg@yahoo.com`
E-mail: `essam_aqlan@yahoo.com`