ESTIMATE COEFFICIENTS FOR SUBCLASSES OF MEROMORPHIC BI-UNIVALENT FUNCTIONS INVOLVING THE POLYLOGARITHM FUNCTION

ABDUL RAHMAN S. JUMA1, HUSAMALDIN I. DHAYEA2

Abstract. In this paper we introduce a new operator $\Omega_c g(z)$ associated with polylogarithm function. Applying it on the subclasses $N_{\Sigma_+}^\ast (\alpha, k)$ of meromorphic starlike bi-univalent functions of order $\alpha$, and $N_{\Sigma_+} (\alpha, k)$ of meromorphic strongly starlike bi-univalent functions of order $\alpha$, also we find estimates on the coefficients $|b_0|$ and $|b_1|$ for functions in these subclasses.

References


2010 Mathematics Subject Classification. 30C45, 30C80.
Key words and phrases. Analytic functions, univalent functions, Bi-univalent functions, Starlike functions, strongly starlike functions, polylogarithm function, Meromorphic functions and Coefficient estimates.


Received 9 September 2015

1 Department of Mathematics, Alanbar University, Ramadi, Iraq

2 Department of Mathematics, Tikrit University

*E-mail address: 1 dr.juma@hotmail.com, 2 husamaddin@gmail.com*