On Some Classes of Bi-Univalent Functions

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Abstract

This chapter discusses some classes of bi-univalent functions. It presents several classes of functions f(z) = z + ×anzn that are analytic and univalent in the unit disc U = {z : | z | < l}. The class of all such functions is denoted by S. The ů denotes the class of all functions of the form f(z) = z + ×anzn that are analytic and bi-univalent in the unit disc, that is, f S and fī1 has a univalent analytic continuation to {| w | < l}. The chapter also introduces the following classes: (1) the class S*ů [Ŭ] of strongly bi-starlike functions of order Ŭ, 0 < Ŭ Ò 1; (2) the class S*ů(ɓ) of bi-starlike functions of order ɓ, 0 Ò ɓ < 1; and (3) the class Ců(ɓ) of bi-convex functions of order ɓ, 0 Ò ɓ < 1

Mathematical Analysis and its Applications Proceedings of the International Conference on Mathematical Analysis and its Applications, 1986, January