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Initial bounds for analytic and bi-univalent functions by means of Chebyshev polynomials. (English) Zbl 1424.30033

Summary: In this paper, we obtain initial coefficient bounds for functions belonging to a subclass of bi-univalent functions by using the Chebyshev polynomials, and also we find Fekete-Szegő inequalities for this class.

MSC:
30C45 Special classes of univalent and multivalent functions of one complex variable (starlike, convex, bounded rotation, etc.)

Keywords:
analytic functions; bi-univalent functions; coefficient bounds; Chebyshev polynomial; Fekete-Szegő problem; subordination

Full Text: DOI

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[18] P. ZAPRAWA, Estimates of initial coefficients for bi-univalent functions, Abstr. Appl. Anal. 2014, Art. ID 357480, 1–6. (Received July 14, 2016)Serap Bulut Kocaeli University Faculty of Aviation and Space Sciences Arslanbey Campus, 41285 Kartepe-Kocaeli, Turkey e-mail:serap.bulut@kocaeli.edu.tr Nanjundan Magesh Nanjundan P. G. and Research Department of Mathematics Govt Arts College for Men Krishnagiri-635001, India e-mail:magi2000@yahoo.co.in Vittalrao Kupparao Balaji