Electronic Journal: Southwest Journal of Pure and Applied Mathematics
Internet: http://rattler.cameron.edu/swjpam.html
ISSN 1083-0464
Issue 2, December 2002, pp. 77–82.
Submitted: February 22, 2002. Published: December 31 2002.

SALAGEAN-TYPE HARMONIC UNIVALENT FUNCTIONS

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Abstract. A sufficient coefficient bound is determined for the Salagean-type class of complex-valued harmonic univalent functions consisting of functions of the form $f(z) = z + \sum_{m=2}^{\infty} a_m z^m + \sum_{m=1}^{\infty} \bar{b}_m \bar{z}^m$, $|z| < 1$. It is shown that this coefficient bound is also necessary if $f(z) = z - \sum_{m=2}^{\infty} a_m z^m + (-1)^n \sum_{m=1}^{\infty} b_m \bar{z}^m$ where $a_m \geq 0$, $b_m \geq 0$, and n is a whole number. Furthermore, extreme points, distortion theorem, convolution condition, and comnvex combinations for this latter class are also determined.

1991 A.M.S. (MOS) Subject Classification Codes. 30C45, 30C50

Key Words and Phrases. Harmonic, Univalent, Starlike, Convex

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