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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.

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