Properties of harmonic functions which are convex of order β with respect to symmetric points

Abstract

Let \( \mathcal{H} \) denote the class of functions \( f \) which are harmonic and univalent in the open unit disc \( D = \{ z : |z| < 1 \} \). This paper defines and investigates a family of complex-valued harmonic functions that are orientation preserving and univalent in \( D \) and are related to the functions convex of order \( \beta (0 < \beta < 1) \), with respect to symmetric points. We obtain coefficient conditions, growth result, extreme points, convolution and convex combinations for the above harmonic functions.