

ON CERTAIN CLASS OF ANALYTIC FUNCTIONS BASED ON POISSON DISTRIBUTION

(Mengenai Kelas Tertentu Fungsi Analisis Berdasarkan Taburan Poisson)

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ABSTRACT

In this paper, a power series whose coefficients are the probabilities of the Poisson distribution is considered. A new subclass of univalent holomorphic functions related to Poisson distribution and convolution is introduced. Some properties such as coefficient estimates, distortion bounds, radii of starlikeness, convexity and close-to-convexity are obtained. The neighbourhood property for functions in this new subclass is also given.

Keywords: Univalent function; Poisson distribution series; convolution; radii of starlikeness; convexity and close-to-convexity; neighbourhood

ABSTRAK

Dalam makalah ini, siri kuasa yang pekalnya adalah kebarangkalian taburan Poisson dipertimbangkan. Subkelas fungsi holomorfi univalen berkaitan dengan taburan Poisson dan konvolusi diperkenalkan. Beberapa sifat seperti anggaran pekali, batas erotan, jejari bakbintang, kecembungan dan hampir cembung diperoleh. Sifat kejiranan fungsi bagi subkelas fungsi baharu ini juga ditunjukkan.

Kata kunci: Fungsi Univalen; siri taburan Poisson; konvolusi; jejak bakbintang; kecembungan dan hampir kecembungan; kejiranan.

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