

**GENERALISED DIFFERENTIAL OPERATOR DEFINED BY
ANALYTIC FUNCTIONS ASSOCIATED WITH
NEGATIVE COEFFICIENTS**

(Pengoperasi Pembeza Teritlak yang Ditakrif oleh Fungsi Analisis yang
Disekutukan dengan Pekali Negatif)

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ABSTRACT

We define a new generalised derivative operator $D_{\lambda,\mu,b}^{m,s}$ for the class A of analytic functions in the unit disc $U = \{z \in \mathbb{C} : |z| < 1\}$. This operator has generalised many well known operators studied by many different authors. Also in this paper we introduce a new subclass of A using generalised derivative operator. Coefficient inequalities, distortion theorems, and extreme points of analytic functions belonging to the subclass are given.

Keywords: analytic functions; Hadamard product (or convolution); univalent functions; starlike functions; derivative operator

ABSTRAK

Pengoperasi terbitan teritlak baru $D_{\lambda,\mu,b}^{m,s}$ ditakrif untuk kelas A fungsi analisis dalam cakera unit $U = \{z \in \mathbb{C} : |z| < 1\}$. Pengoperasi ini adalah pengitlakan pengoperasi yang telah dikenali dan dikaji oleh ramai penulis. Juga dalam makalah ini diperkenalkan subkelas baru A yang menggunakan pengoperasi terbitan teritlak. Ketaksamaan pekali, teorem herotan dan titik-titik ekstrim fungsi analisis terkandung subkelas tersebut diberikan.

Kata kunci: fungsi analisis; hasil darab Hadamard; fungsi univalen; fungsi bakbintang pengoperasi pembezaan.

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