

FOURTH HANKEL DETERMINANT FOR A SUBCLASS OF STARLIKE FUNCTIONS

(Penentu Hankel Keempat untuk Suatu Subkelas Fungsi Bak Bintang)

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ABSTRACT

Let B be the class of normalized starlike functions $f(z)$ which are analytic on an open unit disc $E = \{z : |z| < 1\}$ and satisfy

$$\operatorname{Re}\{\alpha f'(z) + \beta z f''(z)\} > 0$$

for some $0 < \alpha \leq 1$ and $0 \leq \beta < 1$. In this paper, we will obtain a sharp bound of the fourth Hankel determinant, $H_4(1)$.

Keywords: analytic function; Hankel determinant; starlike function

ABSTRAK

Lambangkan B sebagai kelas fungsi, $f(z)$ yang terdiri daripada fungsi analisis di dalam cakera unit terbuka $E = \{z : |z| < 1\}$ dan memenuhi syarat

$$\operatorname{Re}\{\alpha f'(z) + \beta z f''(z)\} > 0$$

untuk $0 < \alpha \leq 1$, $0 \leq \beta < 1$ dan $f(z)$ juga adalah fungsi bak bintang ternormal. Makalah ini bertujuan untuk mendapatkan batas atas terbaik bagi penentu Hankel keempat, $H_4(1)$.

Keywords: fungsi analisis; penentu Hankel, fungsi bak bintang

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