

PROPERTIES OF β -PASCU CONVEX FUNCTIONS OF ORDER α WITH NEGATIVE COEFFICIENTS

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Abstract

For a given p -valent analytic function

$$f(z) = z^p - \sum_{n=m}^{\infty} a_n z^n, \quad (a_n \geq 0)$$

satisfying

$$\operatorname{Re} \left\{ \frac{1}{p} \frac{(1-\beta)zf'(z) + \frac{\beta}{p}z(zf'(z))'}{(1-\beta)f(z) + \frac{\beta}{p}f'(z)} - \alpha \right\} \\ > k \left| \frac{1}{p} \frac{(1-\beta)zf'(z) + \frac{\beta}{p}(zf'(z))'}{(1-\beta)f(z) + \frac{\beta}{p}zf'(z)} - 1 \right|, \quad k \geq 0, z \in E$$

in the open unit disk, we study some properties of a class $TPC(p, m, \alpha, \beta, k)$. Coefficient inequalities, distortion and covering theorems, as well as closure theorems are determined. The properties of Bernardi Integral operator are also discussed for the class $TPC(p, m, \alpha, \beta, k)$.

Key Words and Phrases : *Analytic function, β - Pascu convex function, Negative coefficients, Bernardi integral operator.*

2000 AMS Subject Classification : 30C45.