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A Coefficient Inequality For Certain Classes Of Analytic Functions Of Complex Order

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Abstract: In the present investigation, we obtain the Fekete-Szegö inequality for a certain normalized analytic function $f(z)$ defined on the open unit disk for which $1+\frac{1}{b}\left[\frac{zf'(z)+\alpha z^2 f''(z)}{f(z)}-1\right]$ ($\alpha \geq 0$ and $b \neq 0$, a complex number) lies in a region starlike with respect to 1 and symmetric with respect to real axis. Also certain application of the main result for a class of functions of complex order defined by convolution is given. The motivation of this paper is to give a generalization of the Fekete-Szegö inequalities for subclasses of starlike functions of complex order.