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Fekete-Szegö Functional for some Subclass of Non-Bazilevic Functions

Authors: T.N. Shanmugam, M.P. Jeyaraman, S. Sivasubramanian,

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Abstract: In this present investigation, the authors obtain a sharp Fekete-Szegö's inequality for certain normalized analytic functions $f(z)$ defined on the open unit disk for which $(1+\beta)\left(\frac{z}{f(z)}\right)^{\alpha} - \beta f'(z)\left(\frac{z}{f(z)}\right)^{1+\alpha}$, $(\beta \in \mathbb{C}, 0 < \alpha < 1)$ lies in a region starlike with respect to 1 and is symmetric with respect to the real axis. Also, certain applications of our results for a class of functions defined by convolution are given. As a special case of this result, Fekete-Szegö's inequality for a class of functions defined through fractional derivatives is also obtained.