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Some Generalized Convolution Properties Associated with Certain Subclasses of Analytic Functions

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Abstract:

For functions belonging to each of the subclasses $\mathcal{M}_n^*(\alpha)$ and $\mathcal{N}_n^*(\alpha)$ of normalized analytic functions in open unit disk $\mathbf{U}$, which are introduced and investigated in this paper, the authors derive several properties involving their generalized convolution by applying certain techniques based especially upon the Cauchy-Schwarz and Hölder inequalities. A number of interesting consequences of these generalized convolution properties are also considered.