

GENERALIZATIONS OF HADAMARD PRODUCTS OF
FUNCTIONS WITH NEGATIVE COEFFICIENTS. II

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Abstract. Let $T(n)$ be the class of functions with negative coefficients which are analytic in the unit disc U . For functions $f_1(z)$ and $f_2(z)$ belonging to $T(n)$, generalizations of the Hadamard product of $f_1(z)$ and $f_2(z)$ denoted by $f_1 \Delta f_2(p, q; z)$ are introduced. In the present paper, some interesting properties of these generalizations of Hadamard products of functions in $T_n(\lambda, \alpha)$ and $C_n(\lambda, \alpha)$ are given.

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Key words. Hadamard product, analytic functions.

REFERENCES

- [1] ALTINTAS, O. and OWA, S., *On subclasses of univalent functions with negative coefficients*, Pusan Kyougnan Math. J., **4** (1988), 41–56.
- [2] CHOI, J.H., KIM, Y.C. and OWA, S., *Generalizations of Hadamard Product of functions with negative coefficients*, J. Math. Anal. and Appl., **199** (1996), 495–501.
- [3] DUREN, P.L., *Univalent functions*, Grundlehren der Mathematischen Wissenschaften, Vol. **259**, Springer-Verlag, New York, Berlin, Heidelberg, Tokyo, 1983.
- [4] SRIVASTAVA, H.M. and OWA, S. (Eds.), *Current Topics in Analytic Function Theory*, World Scientific, Singapore, New Jersey, London, Hong Kong, 1992.

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