

**Kim, J. A.; Shon, K. H.**

**Mapping properties for convolutions involving hypergeometric functions.** (English)

Zbl 1019.30008

Int. J. Math. Math. Sci. 2003, No. 17, 1083-1091 (2003).

Let  $\mu$  be a non-negative number, let  ${}_2F_1(a, b, c; z)$  denote the hypergeometric function,  $G(z) = z({}_2F_1(a, b, c; z))$  and let  $f_\mu(z) = (1 - \mu)zG(z) + G'(z)$ ,  $I_\lambda(z) = \int_0^z t^{-1} f_\lambda(t) dt$ . An objective of this note is to give some sufficient conditions under which operators  $I_\lambda(z)$ ,  $I_\lambda * f(z)$  are functions univalent and starlike or convex in the unit disk. Justifications are based on a result of *N. Shukla* and *P. Shukla* [Soochow J. Math. 25, 29-36 (1999; Zbl 0964.30007)].

Reviewer: [Eligiusz Złotkiewicz \(Lublin\)](#)

**MSC:**

**30C45** Special classes of univalent and multivalent functions of one complex variable (starlike, convex, bounded rotation, etc.)

Cited in **7** Documents

**Full Text:** [DOI](#) [EuDML](#)