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## Some Inequalities Associated with a Linear Operator Defined for a Class of Analytic Functions

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**Abstract:** In this paper, we give a sufficient condition on a linear operator  $L_p(a, c)g(z)$  which can guarantee that for  $\alpha$  a complex number with  $\text{Re}(\alpha) > 0$ ,

$$\text{Re} \left\{ (1 - \alpha) \frac{L_p(a, c)f(z)}{L_p(a, c)g(z)} + \alpha \frac{L_p(a + 1, c)f(z)}{L_p(a + 1, c)g(z)} \right\} > \rho, \quad \rho < 1,$$

implies

$$\text{Re} \left\{ \frac{L_p(a, c)f(z)}{L_p(a, c)g(z)} \right\} > \rho' > \rho, \quad z \in E.$$

Some interesting applications of this result are also given.



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