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DIFFERENTIAL SANDWICH THEOREMS USING A GENERALIZED SĂLĂGEAN OPERATOR AND RUSCHEWEYH OPERATOR

ANDREI LORIANA[1] AND ALB LUPAŞ ALINA[2]

Abstract. In this work we define a new operator using the generalized Sălăgean operator and Ruscheweyh operator. Denote by $DR_{\lambda}^{m,n}$ the Hadamard product of the generalized Sălăgean operator D_{λ}^{m} and Ruscheweyh operator R^{n}, given by $DR_{\lambda}^{m,n}:\mathcal{A}\rightarrow\mathcal{A}$, $DR_{\lambda}^{m,n}f(z)=\left(D_{\lambda}^{m}*R^{n}\right)f(z)$ and $\mathcal{A}_{n}=\{f\in\mathcal{H}(U):f(z)=z+a_{n+1}z^{n+1}+...,$ $z\in U\}$ is the class of normalized analytic functions with $\mathcal{A}_{1}=\mathcal{A}$. The purpose of this paper is to derive certain subordination and superordination results involving the operator $DR_{\lambda}^{m,n}$ and we establish differential sandwich-type theorems.

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[1,2] Department of Mathematics and Computer Science, University of Oradea, 1 Universitatii street, 410087 Oradea, Romania

E-mail address: [1] lori_andrei@yahoo.com, [2] alblupas@gmail.com