

Miscellaneous Properties For A Class Of Analytic Functions Defined By Rodrigues Type Formula

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Abstract

In this paper, we deal with a class of analytic functions given by means of Rodrigues type formula and their some properties. For this family, we first obtain a generating function by use of Cauchy's integral formula and then give several recurrence formulas by means of this generating function. We also derive several families of bilateral and bilinear generating functions for these analytic functions and present some special cases. Furthermore, we give some examples of analytic functions belonging to this family and find differential equations verified by these functions.

Keywords: Rodrigues formula, Recurrence relation, Generating function, Bilateral and Bilinear generating function, Differential equation, Hermite polynomial

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