World Scientific
www.worldscientific.com

Generalized Jacobi–Koornwinder's-type Bernstein polynomials bases transformations

Mohammad A. AlQudah*

*School of Basic Sciences and Humanities
German Jordanian University, Amman 11180, Jordan
mohammad.qudah@gju.edu.jo*

Maalee N. AlMheidat

*Department of Basic Sciences, University of Petra
Amman 11196, Jordan
malmheidat@uop.edu.jo*

This paper provides an explicit closed form of generalized Jacobi–Koornwinder's polynomials of degree $r \leq n$ in terms of the Bernstein basis of fixed degree n. Moreover, explicit forms of generalized Jacobi–Koornwinder's type and Bernstein polynomials bases transformations are considered.

Keywords: Jacobi–Koornwinder's polynomials; Bernstein polynomials; transformation; basis.

Mathematics Subject Classification 2010: 33C45, 33C50, 42C05, 05A10, 33B15

1. Introduction

*Corresponding author.