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TRANSFORMATION FORMULAS FOR LAURICELLA'S FOURTH FUNCTION Φ_D

Sunil Singh, Vijay Yadav* and G. S. Pant**

Department of Mathematics,
Dr. Homi Bhabha State University,
The Institute of Science, Mumbai - 32, INDIA

E-mail : sunilsingh@iscm.ac.in

*Department of Mathematics,
SPDT College,
Andheri (East), Mumbai - 59, INDIA

E-mail : vijaychottu@yahoo.com

**Department of Mathematics,
Siddhanath Science Campus,
Mahendranagar, Kanchanpur, NEPAL

E-mail : gspant2008@gmail.com

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Abstract: In the paper a very general transformation formula for Lauricella fourth function Φ_D of n variables has been established.

Keywords and Phrases: Basic hypergeometric series, Lauricella function, transformation formula, q-Binomial theorem.

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1. Introduction, Notations and Definitions

As usual, q- series notations for complex number a and q such that $|q| < 1$ are defined as

$$(a;q)_n = \frac{(a;q)_\infty}{(aq^n;q)_\infty} = (1-a)(1-aq)\cdots(1-aq^{n-1}), \quad n \geq 0,$$