

Connections between two-variable Bernstein and Jacobi polynomials on the triangle

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Abstract

Connection coefficients between the two-variable Bernstein and Jacobi polynomial families on the triangle are given explicitly as evaluations of two-variable Hahn polynomials. Dual two-variable Bernstein polynomials are introduced. Explicit formula in terms of two-variable Jacobi polynomials and a recurrence relation are given.

Key words: Two-variable Bernstein polynomials; Two-variable Jacobi polynomials; Two-variable Hahn polynomials; Dual two-variable Bernstein polynomials; Connection relations.

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