Electronic Transactions on Numerical Analysis.
Volume 24, pp. 45-54, 2006.

ISSN 1068-9613.

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SYSTEMS OF ORTHOGONAL POLYNOMIALS DEFINED BY HYPERGEOMETRIC TYPE EQUATIONS*

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Abstract. A hypergeometric type equation satisfying certain conditions defines either a finite or an infinite system of orthogonal polynomials. We present in a unified and explicit way all these systems of orthogonal polynomials, the associated special functions and the corresponding raising/lowering operators. This general formalism allows us to extend some known results to a larger class of functions.

Key words. orthogonal polynomials, associated special functions, raising operator, lowering operator, special functions

AMS subject classifications. 33C45, 81R05, 81R30

*Received December 17, 2004. Accepted for publication April 4, 2005. Recommended by R. Alvarez-Nodarse.
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