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ETNA
Kent State University
etna@mcs.kent.edu

THE GENERALIZATIONS OF NEWTON'S INTERPOLATION FORMULA DUE TO MÜHLBACH AND ANDOYER*

C. BREZINSKI †

Abstract. Newton's formula for constructing the interpolation polynomial is well–known. It makes use of divided differences. It was generalized around 1971–1973 by Mühlbach for interpolation by a linear family of functions forming a complete Chebyshev system. This generalization rests on a generalization of divided differences due to Popoviciu. In this paper, it is shown that Mühlbach's formula is related to the work of Andoyer which goes back to the beginning of the century.

Key words. interpolation, divided differences, biorthogonality.

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†Laboratoire d'Analyse Numérique et d'Optimisation, UFR IEEA - M3, Université des Sciences et Technologies de Lille, 59655 Villeneuve d'Ascq cedex – France. (brezinsk@omega.univ-lille1.fr).