

FEJÉR ORTHOGONAL POLYNOMIALS AND RATIONAL MODIFICATION OF A MEASURE ON THE UNIT CIRCLE*

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Abstract. Relations between the monic orthogonal polynomials associated with a measure on the unit circle and the monic orthogonal polynomials associated with a rational modification of this measure are known. In this paper we deal with some generalization in order to give an explicit expression of the Fejér orthogonal polynomials on the unit circle. Furthermore we give a simple and efficient algorithm to compute the monic orthogonal polynomials associated with a rational modification of a measure.

Key words. Fejér kernel, orthogonal polynomials, rational modification of a measure

AMS subject classifications. 42C05

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