

# A class of orthogonal functions given by a three term recurrence formula

Cleonice F. Bracciali

Departamento de Matemática Aplicada  
UNESP - Universidade Estadual Paulista  
Campus de São José do Rio Preto, SP, Brazil

**Abstract:** We present a class of functions satisfying a certain orthogonality property for which there also exists a three term recurrence formula. This class of functions, which can be considered as an extension to the class of symmetric orthogonal polynomials on  $[-1,1]$ , has a connection to the orthogonal polynomials on the unit circle. Quadrature rules and other properties based on the zeros of these functions are also presented.

(Join work with A. Sri Ranga, T.E. Pérez, and J.H. McCabe).