

Orthogonal polynomials on the unit circle from a three-term recurrence formula

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Abstract. In this talk, we consider a study of the orthogonal polynomials on the unit circle starting from the three-term recurrence formula

$$R_{n+1}(z) = [(1 + ic_{n+1})z + (1 - ic_{n+1})]R_n(z) - 4d_{n+1}zR_{n-1}(z), \quad n \geq 1,$$

with $R_0(z) = 1$ and $R_1(z) = (1 + ic_1)z + (1 - ic_1)$, where the real sequences $\{c_n\}$ and $\{d_n\}$ are such that $\{d_n\}$ is also a positive chain sequence. Joint work with A. Sri Ranga.