Asymptotic off polar orthogonal polynomials

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Abstract

Let μ be a finite positive measure defined on the Borelian σ-algebra of $\mathbb{C}$, μ is absolutely continuous with respect to the Lebesgue measure $\mathrm{d}\theta$ on $[-\pi, +\pi]$. Let us consider $\{L_n(z)\}_{n\in\mathbb{N}}$, the system of monic orthogonal polynomial with respect to μ. We introduce a new class of polynomials $\{Q_n(z)\}_{n\in\mathbb{N}}$, that we call polar polynomials associated to $\{L_n(z)\}_{n\in\mathbb{N}}$.

We aim studying this polar orthogonal polynomials on the unit circle with respect to μ. We speaking the asymptotic behavior of polar orthogonal polynomials on the unit circle with respect to μ.

References

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