1137-42-226 **Gökalp Alpan***, alpan@rice.edu. *Szegő Condition on arbitrary subsets of* $\mathbb{C}$.

Let μ be a measure in the complex plane of the form $f ds_\gamma$ where γ is a union of finitely many disjoint C^{2+} Jordan arcs and curves and f is the Radon Nikodym derivative of μ with respect to the arc measure ds_γ on γ. If $\log f \in L^1(\mu_\gamma)$ (this is called the Szegő condition) then the orthogonal polynomials associated with μ obey certain asymptotic properties (Widom 1969). Here μ_γ is the potential theoretic equilibrium measure of γ.

We discuss how to extend the Szegő condition on arbitrary non-polar compact subsets of the plane. (Received February 04, 2018)