1086-33-337 **A. Sri Ranga*** (ranga@ibilce.unesp.br), DMap, IBILCE, Universidade Estadual Paulista, S.J. do Rio Preto, SP, 15054-000, Brazil. *A Favard type theorem associated with orthogonal polynomials on the unit circle.* Preliminary report.

The Favard Theorem for orthogonal polynomials on the unit circle (OPUC), also known as Verblunsky Theorem, can be stated as follows. Given an arbitrary sequence of complex numbers $\{\alpha_n\}_{n=0}^{\infty}$, where $|\alpha_n| < 1$, $n \geq 0$, then associated with this sequence there exists a unique nontrivial probability measure μ on the unit circle such that the polynomials $\{S_n\}$ generated by

$$S_n(z) = zS_{n-1}(z) - \overline{\alpha}_{n-1}\, S_{n-1}^{*}(z), \quad n \geq 1,$$

are the respective monic OPUC. In this talk we consider a Favard type theorem for OPUC starting from the three term recurrence formula

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

with $R_0(z) = 1$ and $R_1(z) = (1 + ic_1)z + (1 - ic_1)$, where $\{c_n\}_{n=1}^{\infty}$ is any sequence of real numbers and $\{d_n\}_{n=1}^{\infty}$ is any positive chain sequence. Use of the theory of continued fractions plays an important role in this talk. (Received August 22, 2012)