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**Universality Limits Involving Orthogonal
Polynomials on the Unit Circle**

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Abstract. We establish universality limits for measures on the unit circle. Assume that μ is a regular measure on the unit circle in the sense of Stahl and Totik, and is absolutely continuous in an open arc containing some point $z = e^{i\theta}$. Assume, moreover, that μ' is positive and continuous at z . Then universality for μ holds at z , in the sense that the normalized reproducing kernel $\tilde{K}_n(z, t)$ satisfies

$$\lim_{n \rightarrow \infty} \frac{1}{n} \tilde{K}_n \left(e^{i(\theta+2\pi a/n)}, e^{i(\theta+2\pi b/n)} \right) = e^{i\pi(a-b)} \frac{\sin \pi(b-a)}{\pi(b-a)},$$

uniformly for a, b in compact subsets of the real line.

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