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Helge Krueger* (helge@caltech.edu), Pasadena, CA 91125. *A special class of orthogonal polynomials on the unit circle.*

I compute the support and the type of the spectrum of the orthogonal polynomials on the unit circle whose Verblunsky coefficient are given by

$$\alpha_n = \lambda \exp(2\pi i \omega n^r)$$

where $0 < |\lambda| < 1$, ω is irrational, and $r \geq 2$. Furthermore, I analyze the eigenvalue statistics in the case $r = 2$. (Received January 15, 2012)