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**Summer Al-Hamdani\*** (summera@mail.fresnostate.edu). *On Binomial Combinations of Chebyshev Polynomials.*

The sequence of Chebyshev polynomials of the second kind  $\{U_m(z)\}_{m=0}^{\infty}$  is a well-known sequence of orthogonal polynomials whose zeros lie on the interval  $(-1, 1)$  and are dense there as  $m \rightarrow \infty$ . In this talk, we study the zero distribution of a sequence of polynomials  $\{P_m(z)\}_{m=0}^{\infty}$  formed by linear combinations of Chebyshev polynomials whose coefficients are of binomial type. In particular, we prove that the probability the zeros of  $P_m(z)$  lie on  $(-1, 1)$  approaches 100% as  $m \rightarrow \infty$ . (Received February 17, 2020)