1172-26-73 **Ali Pirhadi*** (apirhadi@gsu.edu), 25 Park Place, 14th Floor, Georgia State University, Atlanta, GA 2803630303. *Real zeros of random trigonometric polynomials with ℓ-periodic coefficients.*

The large degree asymptotics of the expected number of real zeros of a random trigonometric polynomial

$$T_n(x) = \sum_{j=0}^{n} a_j \cos(jx) + b_j \sin(jx), \ x \in (0, 2\pi),$$

with i.i.d. real-valued standard Gaussian coefficients is known to be $2n/\sqrt{3}$. We consider quite a different and extreme setting on the set of the coefficients of T_n and show that a random trigonometric polynomial of degree n with ℓ-periodic coefficients is expected to have significantly more real zeros compared to the classical case with i.i.d. Gaussian coefficients. (Received August 17, 2021)