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Zachariah E Tyree* (ztyree@fau.edu) and **Andrew Thomack**. *On the expected number of zeros of complex Weyl polynomials.*

The zero sets of harmonic polynomials have been the subject of much recent research. In 2009 Li and Wei studied the zeros of random harmonic polynomials with independent Gaussian coefficients. They derived a formula for the expected number of zeros as well as asymptotics for the case that the polynomials are drawn from the Kostlan ensemble. We will propose a new model of random harmonic polynomials based on the Weyl ensemble, and we present asymptotics for this case. We will also briefly discuss interesting phase transitions exhibited by the so-called "first intensity" (an averaged density of zeros in the complex plane). (Received September 14, 2017)