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**Igor E Pritsker\*** ([igor@math.okstate.edu](mailto:igor@math.okstate.edu)), Department of Mathematics, Oklahoma State University, Stillwater, OK 74078. *Expected discrepancy for zeros of random polynomials.*

We study asymptotic clustering of zeros of random polynomials on the unit circumference. The limiting distribution of zeros according to the normalized arclength measure is well known for many sequences of classical and random polynomials. We establish a quantitative result that the expected discrepancy of roots of a polynomial of degree  $n$ , with not necessarily independent coefficients, decays like  $\sqrt{\log n/n}$ . Our proofs rely on discrepancy estimates generalizing the Erdős-Turán theorem, and on order statistics of a random variable. We also consider the expected number of zeros lying in certain subsets of the plane, such as circles centered on the unit circumference, and polygons inscribed in the unit circumference. This is a joint work with Alan Sola (University of Cambridge). (Received November 04, 2012)