1145-VT-730   **Noah N. Williams*** (`noah.williams@colorado.edu`), Department of Mathematics, University of Colorado Boulder, 2300 Colorado Avenue, 395 UCB, Boulder, CO 80309-0395, and **Sean O'Rourke** (`sean.d.orourke@colorado.edu`). *Pairing between Zeros and Critical Points of Polynomials with Random Roots.*

We study the pairing between zeros and critical points of degree n random polynomials whose roots are independently chosen according to a distribution on the complex plane. In particular, we locate the nearest critical point to a given root and determine its limiting fluctuations. We also generalize to situations where the roots are not independent and use the Wasserstein metric to establish that the typical distance between a root-and-critical-point pair is on the order of $1/n$, up to logarithmic corrections. (Received September 13, 2018)