

1154-G5-2148 **Beth Schaubroeck*** (beth.schaubroeck@edu.usafa.edu). *Finding roots of a class of harmonic polynomials*. Preliminary report.

Harmonic polynomials of a single complex variable provide a rich avenue for research. Here, we focus our attention on the class of harmonic polynomials $p_c(z) = z^n + c\bar{z}^k - 1$, where n and k are natural numbers with $k < n$ and c is a positive real number. The number of roots varies from n to $n + 2k$ as c increases. The discussion of winding number, and what it means for harmonic functions, plays a key role in the results. (Received September 17, 2019)