1145-14-2326 **Bill F Trok*** (william.trok@uky.edu). *Points and Differential Forms.* Preliminary report.

Given a finite collection of points Z in projective space $\mathbb{P}^n$, we say Z admits unexpected hypersurfaces if the intersection of the ideal I(Z) and I(mQ) where Q is a generic linear subspace is larger than expected. We show that this problem can be studied by looking at the bundle of logarithmic differential forms of the hyperplane arrangement, A(Z), which is dual to the sets of points Z. In particular, a differential form defines either a rational map through the points or a polynomial vanishing on these points. This perspective allows us to reinterpret old results in a new context, and study these differential forms from a new perspective. (Received September 25, 2018)