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Unexpected Hypersurfaces.

A flurry of activity has taken place in the last half decade or so on the topic of configurations of points that admit unexpected curves and unexpected hypersurfaces. This work began in the setting of the projective plane, but more recently has moved in interesting ways into the more general setting of higher dimensional projective space. This work has shown unexpectedness to be related to rank 2 vector bundles on the plane, line arrangements, Terao’s conjecture, the Weak and Strong Lefschetz Properties, hyperplane arrangements, and root systems. Also, interesting geometric properties of our configurations have recently presented themselves. I will give an overview of this work, with a slight emphasis on a recent preprint of B. Harbourne, U. Nagel, Z. Teitler and myself. (Received August 20, 2018)